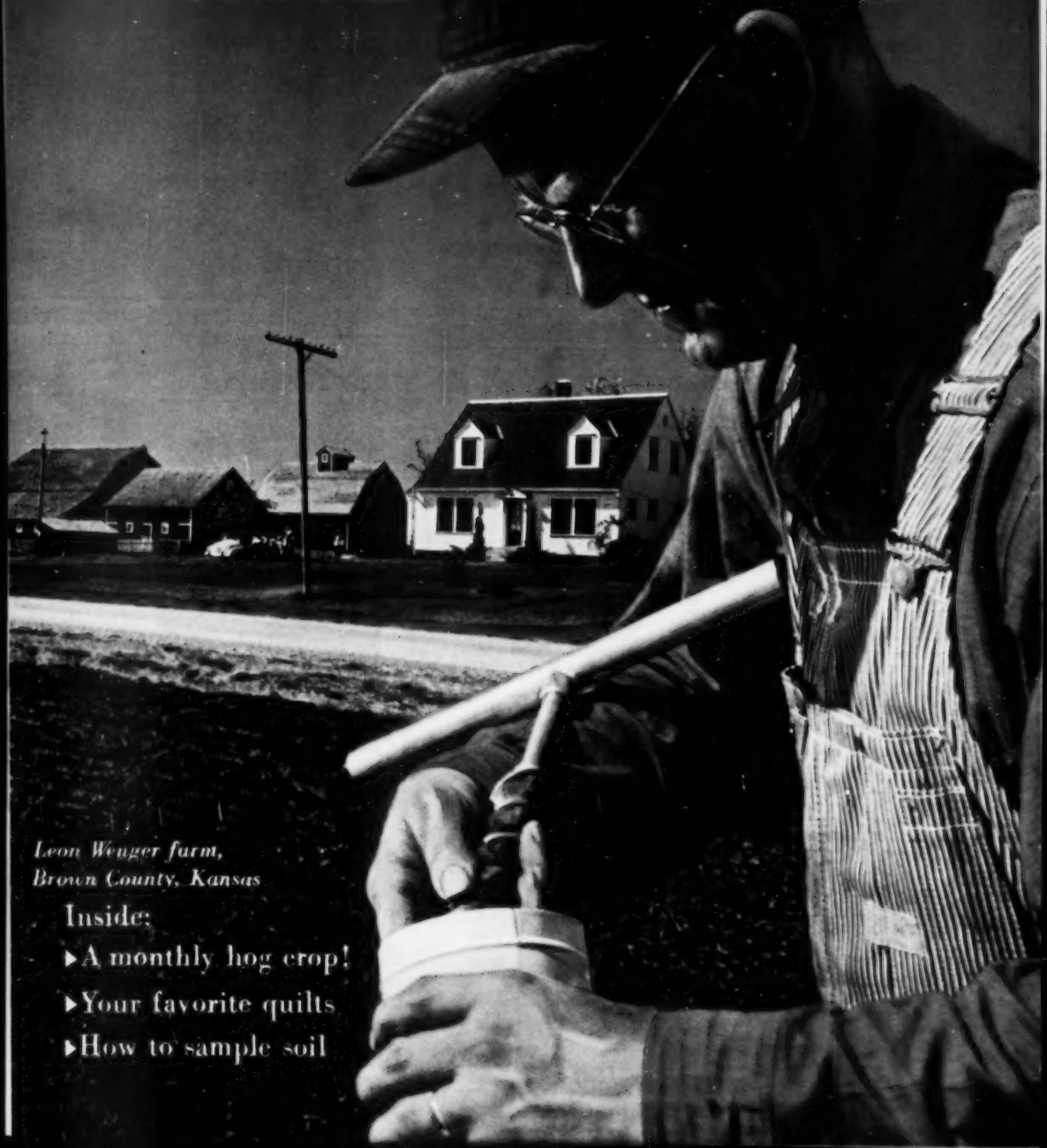
Successful Farming

February 1952 · 25 cents



Leon Wenger farm, Brown County, Kansas

Inside:

- A monthly hog crop!
- Your favorite quilts
- How to sample soil

power
to build your profits...
performance
to cut your costs!

MINNEAPOLIS MOLINE
MODERN MACHINERY

MM OWNERS EVERYWHERE SAY:
YOU CAN DO *MORE* WORK, *EASIER*, AT A *BIGGER* PROFIT WITH

MM TRACTORS TEAMED WITH MM MATCHED MACHINES

MM Visionlined Tractors supply balanced power, and what is more important, they're designed to use less fuel for the power delivered! Balanced weight and power also assure owners that maintenance costs of the MM Visionlined Tractors are unusually low. There is long-life dependability and all-time economy engineered into each of the MM Visionlined Tractors. From the full two-plow power R to the four-five plow power of the mighty G, there is built-in quality that assures greater return on your equipment investment. MM tractors and matched MM machines are truly machine tools of production on the farms of American businessmen-farmers.

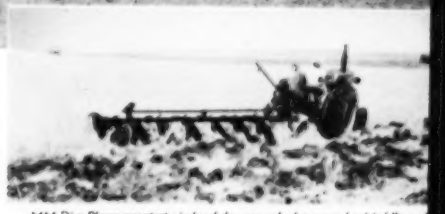
POWER IS PROFITABLE ONLY IN TERMS OF WHAT IT CAN DO FOR YOU AND YOUR FAMILY

MM owners in your area will mention such things as high turbulence combustion chambers, cylinders cast in pairs, visionlined design, hand operated Twin-Disc clutch, reliable foot operated brakes, conveniently located controls, the comfortable Flote-ride seat, and easy steering. Many of these features make it easier for the operator to accomplish more work without getting all tired-out. MM fingertip, single lever operated Uni-Matic hydraulic controls are great time and labor savers. Remember, the MM Uni-Matic power system has a safety lockout device for your protection.

MM Tractors and MM Modern Machines are *matched machines* . . . money-makers that team-up to reduce your drudgery and help you lower your production costs. Plowing, seed-bed preparation, planting, cultivating, and harvesting are handled easily, when your power and machines *fit your farming needs!* The built-in quality of every piece of equipment carrying the MM trade-mark is a plus value you will appreciate—one you will measure in dollars saved, and years of satisfactory performance.

In making an investment in farm machinery . . . equipping your farm-factory with the best possible machine tools . . . you are making a long-range investment in your future. As a practical farmer-businessman you understand the advantages in making a purchase that is a sound, long-range investment. As a practical mechanic you know that a workman is measured by his tools. You'll want power and machines that stay on the job. As a successful farmer, your neighbors respect your opinion and you respect theirs. Why not check with owners of MM Visionlined Tractors and Modern Machines in your area? You'll also find that your MM dealer is a neighborly service institution . . . a respected businessman in your community who is able and willing to render low-cost, and good service to his customers. See your MM dealer soon or write for complete facts now.

MINNEAPOLIS-MOLINE
MINNEAPOLIS 1, MINNESOTA



MM Disc Plows penetrate in hard dry ground where regular Moldboard Plows will not work—plow down to 14 inches deep. Shown with Standard 3-4 plow U tractor.

Here a standard U and two MM Uni-Tillers with field cultivators prepare an excellent seed-bed.

MM Wide-Cut Harrow pulverizes the soil, does not dig in on turns . . . here it is controlled by Uni-Matic power.

Here the MM Visionlined 3-4 Plow U Tractor operates a Uni-Tiller equipped with the MM rod-weeder.

The operator of this 2 plow standard R Tractor is the only man-power required to operate the MM Bale-O-Matic.

The MM self-propelled Harvestor with power-flow drive handles all crops—standing grain or from windrows. Many new features!

This U Tractor using LP gas is pulling a Wheatland Disc Plow equipped with the Moline-Monitor seeder, cuts operating costs to rock bottom.

The 12 ft. MM Harvestor—leading seller in its size because it's built to get the crop at lowest cost per bushel.

It all depends upon

who says so!

It's easy to *say* that any tractor tire gives greater traction.

It's easy to *say* that any tractor tire cleans better.

It's easy to *say* that any tractor tire wears longer.

But the most important question to you is—*who says so?*

When farmers say so—farmers who've tried *all* makes of tractor tires—farmers with years of firsthand work-a-day experience in the field—then you've got just about the best proof there is.

And thousands of American farmers like you, in survey after survey, vote Goodyear's Super-Sure-Grips their *First Choice* in tractor tires.

Farmers say Goodyears pull where other tires won't.

Farmers say Goodyears last longer. They ought to know!

FIRST in Traction! · FIRST in Long Wear! · FIRST in Popularity!

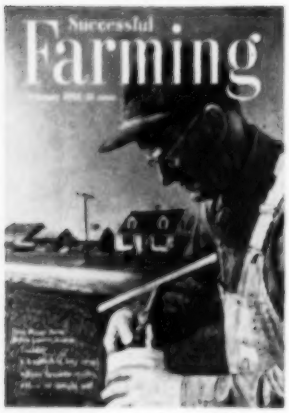
GOODYEAR

Super-Sure-Grip Tractor Tires

We think you'll like "THE GREATEST STORY EVER TOLD"—Every Sunday—ABC Network

Super-Sure-Grip—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

This month



Photograph: Suter, Hedrich-Blessing

Each month the editors of *Successful Farming* ask their cover family for a few details from which this column can be written. The Leon E. Wengers of Powhattan, Kansas, did such a bang-up job of answering this request that we are letting them write their own story:

"Our story is short and easy to tell. Mrs. Wenger and I both grew up on farms in this community. A few years ago we managed to buy a farm.

"Like most, ours needed renovating here and there. The house was old and needed repairs. The soil was good but was showing wear.

"That was six years ago. Today we have the house problem licked with a new home that fits our family's needs. The outbuildings have been improved for the hogs (registered Durocs) and beef cattle (Angus) on this 240-acre farm.

"The soil, about which we have some strong views, is our special love. We feel it's a rare privilege to be the temporary guardians of a mite of this heritage on which all humanity is so dependent.

"Here at 'Sunny Terrace' we are using soil-conservation practices and are employing short rotations with legumes; liming and fertilizing where needed.

"Here are a few additional facts about our family and community activities.

"Church affiliation: We belong to the Powhattan Methodist church and take part in its activities.

"4-H Club: Barbara and Anita have belonged since they were 10 years of age. Dickie has a heifer and is looking forward to clubwork.

"Community activities: Mrs. Wenger has a motto that, 'A woman's home should be the center of her life but never the limit.' Thus, she is active in clubwork and other community affairs.

"The whole family enjoy outings together, attending the community folk and square dances, and going to a good movie now and then.

Sincerely,
Mr. and Mrs. Leon E. Wenger"

Successful
Farming
The Dairy Farmer

THE MAGAZINE OF FARM BUSINESS AND FARM HOMES

February, 1952 Vol. 50, No. 2

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ON LOCKING THE BARN DOOR...

Everybody knows the old saying about "locking the barn door after the horse is stolen."

But not everybody does something about it.

That's why we keep on reminding people, over and over again, to be sure to take out enough life insurance before it's too late.

Because if you keep putting it off until you're no longer insurable—and *then* realize how much security your wife and children have lost as a result, you'll feel just like the man who forgot to snap the lock on his barn door in time.

And getting the right kind of life insurance at the right time of your life is almost that easy—if you call on your New York Life agent for the kind of help he's qualified to give. So why not do it now—right away—and put your mind at ease about your family's future and your own?

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Farm Outlook

Latest information on conditions, production, markets, and income prospects

The year looks good

The year 1952 promises to be a year of relative over-all stability. Purchasing power will be ample, even allowing for the higher tax rates in effect. With certain consumer durable goods again becoming in fairly short supply, *more purchasing power will be available for things the farmer produces.*

Higher gear

Speed-up of defense program is promised now—for sure. Faster pace is expected to (1) take bigger slice of total production resources, (2) shift more materials and labor from production of civilian goods, (3) pull more labor off the farms.

Significance for you is that there will be less materials for farm production and less farm labor—at the time you are asked to *increase food and feed production* in 1952.

You have heard all this repeatedly—with some false alarms—during the last 20 months. *This time the government firemen say it's for real.*

Food increase

Food-production increases in 1952 are sought mainly through increased cattle slaughter and increased production of food crops. A small increase in hog slaughter is expected during the first nine months of 1952, then a fall-off which will reflect a reduction in the 1952 spring pig crop. No increase is expected in milk production, and only a small increase in poultry and eggs. Winter-wheat prospects are good.

Feed increase

Feed-production increases are sought through bigger acreage and bigger yields. Put emphasis on *most feed per acre.* On many farms, corn will yield more than twice the quantity of feed than will oats.

Corn picture

Corn production has declined for three straight years, *while livestock production has increased.* Carryover next October may be less than 400 million bushels. U.S.D.A. says desirable reserve is 1 billion bushels—that this can't possibly be reached in next few years.

Cattle keg

Cattle and calf slaughter in 1951 was the smallest in 10 years. An increase is likely this year, even though there is a further increase in cattle on farms and ranches. *Big increase in slaughter would affect not only cattle prices, but prices of hogs, poultry, and eggs, as well.* Consumer demand is big—but it isn't big enough to take on more beef without cutting down on other foods.

Farmers appear to be feeding more cattle this winter than they were a year ago. Shipments into the eight Cornbelt states during the last half of 1951 were around 10 percent greater than in the corresponding months of 1950. *Also, there were more native cattle to be fed.* Feeding in California and the other Western states is at or near a record high. Prices may not press ceilings as closely as they did in 1951.

Usually, the prices of *top-grade cattle decline as the days grow longer.* At the same time, prices of low-grade steers and other *cheap cattle usually work higher.* In 1951, price ceilings reduced, but did not eliminate, the usual seasonal changes in cattle prices. Near-normal seasonal variations are likely in 1952.

Pig loss

This winter's 10-to-1 hog-corn price ratio was certainly no incentive to increase the spring pig crop. Nowadays, the dividing line is about 12-5.

Hogs—when to sell

February usually brings good markets for hogs. Receipts decline moderately, and prices approach their winter high. *Sell hogs as they reach 225-240 pounds.*

Concentrate on keeping production costs low. Save every possible pig. Make use of guardrails and pig brooders or heat lamps in individual houses. If you use permanent buildings, *you can save many pigs and get more sleep* if you construct and use farrowing crates and heat lamps.

Lambs and wool

During the early winter, prices of lambs were about $10 a hundred pounds under the high point reached last March. Most of this reduction in prices is accounted for by lower values for the pelts.

Farmers probably are feeding a few more lambs this winter than they were a year ago, but consumer demand for lamb is greater, too. *Price ceilings on lamb probably will restrict the usual spring increase in prices.*

Dairy

Milk cows will be a better investment in 1952, and should make a little more money than during the past year. *Milk production per person has not kept pace with population increase.* Feeding ratios promise to be slightly better this year.

Barnyard vista

For several years now, poultry and eggs have been cashing in on limited supplies and the rising prices of red meat. This year the going will be rougher, *particularly on high-cost producers.* The sharp break in December egg prices is a sample of what could happen during flush time.

Poultry feed is certainly no bargain this winter. A number of suburban and other part-time producers have had to quit their poultry and egg sidelines. Both the meat-feed and egg-feed price ratios have been below their long-term averages.

Commercial-broiler men are feeling the pinch, as 75 percent of their production cost is for feed.

Crops doing better

In contrast with the outlook for livestock products, this may be your best crop-price year. Unlike most years, prices advanced soon after harvest—reflecting smaller crops in terms of food and feed value, plus a big foreign demand for wheat, corn, and other grains.

Big factor in the grain-price rise has been the great export volume—about 475 million bushels of wheat and nearly 235 million of corn and other coarse grains in calendar year 1951.

Good potatoes

Most striking in the price picture has been the rise in potato prices. And this without burden of government subsidy. The late crop in principal producing states was only 240 million bushels, against 316 million a year earlier. Sweet-potato crop also was small, reducing the market competition with white potatoes.

The future

Looking a generation ahead, government economists see need for the equivalent of an additional 100 million acres of cropland—based on the present size and pattern of food consumption for a population of 190 million people.

Since all this additional land won't be available, the same result must be obtained through higher yields.

No one really knows the upper limits of acre yields; everyone does know, however, that yields can be shoved a lot higher than at any time in the past.

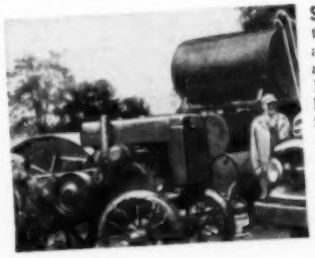
We used to think 100 million acres were needed to produce 2.5 billion bushels of corn. Now we expect to produce 3.5 billion bushels of corn on about 90 million acres. END

STANDARD

FARM NEWS-GRAPHIC

Craftsman, old tractor, old friends

Builds self-propelled combine. Homer Schell, Hemlock, Michigan, explains to his Standard Oil Agent, Ed Claxton, how he converted an old-model combine into a self-propelled unit. "The cheapest way to keep machinery running right," Mr. Schell says, "is to use the very best gasoline and oil. I have used Standard Oil products for 18 years and I've always found they completely fill the bill." Mr. Schell's agent supplies him with RED CROWN Gasoline, oil, lubricants, sprays.



Still going strong. In this old-time tractor, still on the job at Lake Odessa, Michigan, after 27 years of service, Floyd Peabody, 84 years old, has never used anything but Standard's fuels, POLARINE and Iso-Vis Motor Oils. This shows what the use of high quality fuels and lubricants means. Standard Oil products will pay off for you in longer, trouble-free service.

Like father . . . like sons. Today, 34 years after their father made his first purchase from Standard Oil, two more generations of Schonamans are still doing business with us at Albion, Ill. Above are John Schonaman, Frank Schonaman, young John E. Schonaman (son of John), Loren Diesner, retiring Standard Oil agent and Don Cunningham, new agent who now takes over. Long associations like this result from reliable, friendly service and top quality products at reasonable prices.

News and Notes FOR FEBRUARY

American farmers now operate tractors and power units rated at an estimated 180,000,000 horsepower. That's an amount equal to twice the power consumed by all the factories of the nation.

Now from the time of the kerosene lamp era almost 60 years ago, Standard Oil Agents have considered the farmer a preferred customer. We maintain a service "army" of more than 6,000 agents and drivers to supply Midwest farms with constantly improved petroleum products for power farming. There's a Standard Oil Man near you, ready to bring you promptly whatever you need to keep your equipment working at top speed.

• • •

Acreage needed *for feed crops in 1952 will be greater than ever. With a job like that ahead, you'll need to take advantage of every break in the weather to get your seed in the ground. That's where ample supplies of quality fuels and lubricants count. This month, February, plan with your Standard Oil Man to have those supplies on hand, all ready to go!*

Here's a handy way to figure a tractor's field speed. Walk beside it for 20 seconds, counting the number of 3-foot steps you take. Then point off one place. If you take 32 steps, the speed is about 3.2 MPH. At any speed you will be getting better lubrication with PERMALUBE Motor Oil.

Your Standard Oil Man

Baby Ben...

welcome addition to any family!

Adopted in thousands of happy homes, Baby Ben is probably the most popular "kid brother" in the world. Proud to be such a close relative of Big Ben, this little fellow nevertheless stands on his own feet . . . and is loved for himself alone. His tick is quiet and well-mannered. His call is steady (as befits a baby) but it is pleasant. And you can adjust it to loud or soft, as you wish. All in all, Baby Ben is a thoroughly dependable chap, a pleasure to have around the house. Your choice of black or ivory finish. $5.45. With luminous dial, he's one dollar more.

BIG BEN ELECTRIC ALARM. This handsome fellow has a pleasant bell alarm which you can adjust to loud or soft. $8.95. With luminous dial, he's one dollar more.

BIG BEN LOUD ALARM. Known around the world. He has a tick you can hear; a deep, intermittent "fire alarm" gong. $5.45. With luminous dial, a dollar more.

Prices quoted do not include tax and are subject to change

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Friend to Friend

Corn

Farmers caught with large numbers of livestock and a poor corn crop fully appreciate the part corn plays in agriculture. The emphasis on expanded acreages this year indicates our federal officials likewise recognize the tremendous value of this crop. And corn is more and more important, since the plant breeder is proving so successful in adapting it to northern and southern climates heretofore unsuited for corn.

I listened eagerly at a winter meeting of hybrid-corn producers. For several years I had harbored the impression that the ceiling had been reached in potential corn production. But recent discoveries in plant breeding disclosed at this meeting convinced me the full potential has not yet been realized.

The corn breeder's work throws increased burdens on the soil. Deficiencies never before noticed are showing up in trace elements such as magnesium. With the application of fertilizer to the newer hybrids resulting in heavy increases in yields, more of these deficiencies may be expected. Despite our vast interest in grass, we still must bow to corn as the backbone of our livestock program.

A bad blunder

While defending the right of the U. S. Department of Agriculture to survey the effects of any of its programs, I feel the Family Farm Survey was a bad blunder. In fact, there were many blunders in handling the survey from the start to its present muddled condition.

But the big blunder was in the way state farm leadership was ignored. Does Secretary Brannan think our splendid agricultural colleges have nothing to offer in planning and putting over such an important study? The writing of the 122-page outline—which farmers were expected to read and discuss in two or three evenings in the busy season—was wide open to criticism. Colleges would have done much better.

The manner of conducting the survey was most unfortunate. In many counties farmers were told the report would be made by the heads of action agencies within the county, without calling a meeting of farmers. I can understand how the writers of some hot letters I received boiled over at that answer. If this is what we may expect from federal agencies, it's time to call a halt.

I cannot believe state farm leaders were intentionally ignored. Nor do I think Mr. Brannan or his undersecretary had anything but the best in mind for farmers when the Family Farm Survey was conceived. But it is now so discredited it's wholly useless. Worse yet, it is a liability.

The survey does not represent the opinions of either farmers or government employees. However, it is time every organization concerned in the welfare of our country started studying the forces now at work on the family farm. The whole pattern of American agriculture, today a model for the world, could change in two generations—perhaps one.

Family farm surveys properly made by a number of different agencies might disagree at some points, but they would reveal much needed information. Just because everyone is *for* the family-sized farm, we dare not assume its future is secure. It's no time for blundering or personal feuds.

Our major farm organizations have an excellent opportunity this winter to make a study of all public agencies serving farmers. This should be followed by a survey of opinion.

The pig hatchery

Will a newly announced substitute for sow's milk make it possible to get rid of the sow as soon as her pigs are born? Much doubtful headshaking has been going on.

I'm reminded of the doubt that followed the incubator and brooder for chickens many years after they were proved to be practical. As a small boy I helped my mother look after 20 to 25 setting hens and their broods. The waste of time, eggs, and young chickens was great. I doubt if we raised 25 percent of the chicks hatched. The temperamental nature of a setting hen was terrible.

When the only known system of doing a job obviously is inefficient, repeated efforts will be made to develop a better one. Raising chickens with old hens was wasteful. Generally speaking, raising pigs by present methods is wasteful. The loss of pigs from farrowing to weaning time is high. The pig hatchery offers great promise. Artificial sow's milk may speed the spread of hatcheries. It may prove practical in the hands of most farmers. I feel certain we will discover a much better way to produce pigs. If this development is not it, we need another.

Kirk Fox

The Power You Want—When You Want It Where You Want It . . .

that's Pontiac's New *Dual-Range* Performance

① More Powerful High-Compression Engine

② Wonderful Dual-Range Hydra-Matic Drive*

③ New High-Performance Economy Axle

Be sure to see the great 1952 Pontiac! It brings you General Motors' sensational new Dual-Range Hydra-Matic Drive*—coupled with Pontiac's great high-compression engine—and a new high-performance, economy axle. At the *touch of your finger*, you can elect to have tremendous acceleration and snap and go! Or, with equal ease, you can choose an altogether *different* type of performance; silken, gliding, gas-saving—perfection itself for the open road. In other words, you have the power you want—*where* and *when* you want it. And there are many *other* advancements in the new Pontiac, too. Better *see* it—*drive* it—today.

*Optional at extra cost.

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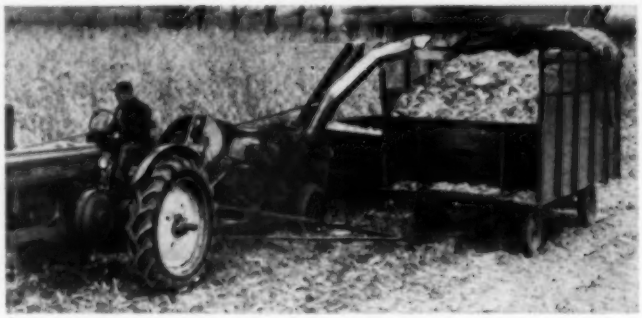
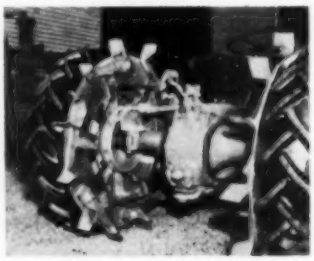
What's new in farming

Tips you can use today



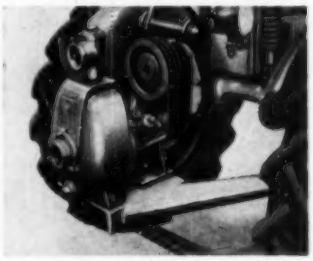
Husker-shredder. This machine cuts off the cornstalks, removes and husks the ears, saves shelled corn in a sack, and shreds the stalks and blows them into another wagon or back onto the ground. The machine provides shredded fodder for roughage or bedding, or shreds the stalks for easy plowing. The machine is said to eliminate the extra operation of discing or stalk chopping. The implement is motor-driven or can be furnished with a power-take-off unit for 3-plow tractors.—*Rosenthal Corn Husker Company, 8229 W. Greenfield Ave., Milwaukee, Wisconsin.*

Retractable lugs. These lugs are installed inside the rear wheels. The complete attachment turns with the wheels. A



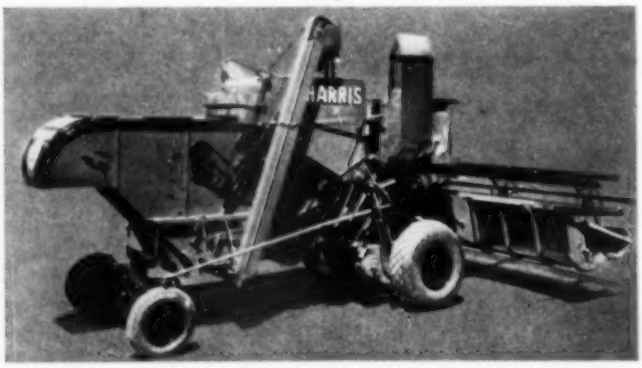
lever is used to extend the lugs when they are to be used. When not in use, the lugs fold down out of the way.—*Retractable Power Set Traction Lug Company, 4516 University, Dallas, Texas.*

Tractor-driven pump. This self-priming centrifugal pump mounts on the drawbar of all International Harvester Company tractors. The pumps are available in 1½-, 2-, 3-, and 4-inch suction and discharge sizes. The pumps will deliver



up to 43,500 gallons per hour at pressures as great as 75 pounds per square inch.—*Barnes Manufacturing Company, Mansfield, Ohio.*

Self-leveling combine. This machine is said to be ideal for harvesting hilly fields. Duplicate-ram hydraulic equipment and double-axle rear wheels enable the wheels to be positioned at right angles to the horizon at all times.—*Harris Manufacturing Company, 702 N. Wilton Way, Stockton 5, California.*



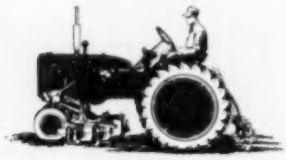
Turning two 14-inch furrows 8 inches deep with the Super C and McCormick quick-connect, rear-mounted plow.

Cultivating cross-checked corn with McCormick front-mounted cultivator. You cultivate straight rows or on the contour with equal ease.

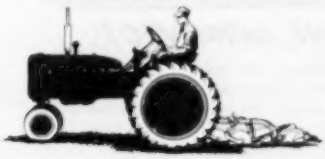
You get more pull-power with a McCormick® FARMALL® Super C!

"More pull-power than any tractor of its size"—owners report from actual experience with the McCormick Farmall Super C. They've found the Super C's greater horsepower and weight form a perfect *power-weight balance* for greater pull-power. The big, wide tires have more ground-gripping area. This results in greater traction—more pull-power for all your jobs.

Hitched to forward or rear-mounted implements, or harnessed to heavy drawbar loads, the Farmall Super C gives you more pull-power than any tractor of its size—*on* up to 25 per cent less fuel!

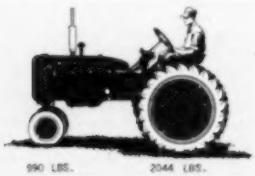


With forward-mounted implements. Super C correct *power-weight balance* provides positive traction, more pull-power for covering more acres, making fast, accurate turns with forward-mounted planters and cultivators. You do a better job of planting and cultivating while you watch your work on a Farmall Super C.

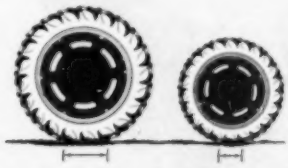


. . . With rear-mounted implements. Correct *power-weight balance* means the Super C gives you ample pull-power for plowing, middlebusting, working with all rear-mounted implements. Set your implement deep with Touch-Control, climb on the Super C, feel its husky pull-power carry you steadily down the field, working always at the selected depth.

. . . With drawbar loads. You'll quickly discover Super C correct *power-weight balance* pays off in greater pull-power when hitched to heavy drawbar loads. Pull-power you'll appreciate for disking, plowing or lugging a heavily-loaded spreader or wagon through soft or muddy fields.



Perfect power-weight balance. Super C weight is correctly distributed between front and rear wheels. The high ratio of weight on the big drive wheels gives you better traction. At the same time you get positive, easy steering.



Big, wide tires—more lugging ability. Super C tires are big—54 inches high. They give you more ground-gripping area, more load-moving ability in field and farmyard. You get more traction, more pounds pull from every ounce of engine horsepower.

MAKE YOUR OWN PULL-POWER TEST!

Ask your IH dealer to demonstrate Farmall Super C pull-power on any job on your farm . . . both on the drawbar and with McCormick direct-connected implements. See how much more work you can do with correct *power-weight balance.* You'll soon see *why* you get more pull-power—more work output—for your money with a Farmall Super C!

INTERNATIONAL HARVESTER

International Harvester products pay for themselves in use—McCormick Farm Equipment and Farmall Tractors . . . Motor Trucks . . . Crawler Tractors and Power Units . . . Refrigerators and Freezers—General Office, Chicago 1, Illinois

Books

for your pleasure and profit

By Robert West Howard

Long, cold February evenings were meant for family reading by the fire, with big bowls of warm, buttery popcorn within reach. Here are my choices from the array of new books fresh off the presses.

Work before pleasure, of course. There are some excellent farm workbooks worthy of space on that reference shelf in the toolroom. **The Farmer's Shop Book** by Louis M. Roehl (Bruce Publishing Co., Milwaukee 1, Wisconsin, $3.25) is as complete a job as I've seen in the broad field of farm mechanics. Doctor Roehl, professor of farm mechanics at Cornell University, devotes chapters to grinding farm tools, carpentry and woodwork, painting, repairing, ropework, forging, welding, and home electricity. There are thousands of photographs and diagrams, many illustrating the step-by-step process. This is a husky, well-bound book that will stand a lot of wear and tear.

The Theory and Practice of Arc Welding by Raymond J. Sacks (D. Van Nostrand Co., 250 Fourth Ave., New York 3, New York, $5.50) is another volume for the farm toolroom. This is a professional course on arc welding, complete with blueprints for 58 types of jobs. The reference book has the approval of the American Welding Society.

Van Nostrand also publishes **Hand Tools, Their Use and Operation** by A. M. Wagener and H. R. Arthur ($2.50), a guidebook on the proper use of all kinds of hand tools, from dividers and calipers to wood screws and rivets, Vernier gauges, and wrenches.

The new, 480-page **Better Homes & Gardens Handyman's Book** (Meredith Publishing Co., Des Moines 3, Iowa, $3.95) is exciting news for any homeowner. It's packed with basic know-how the average homeowner needs. And it instructs largely through step-by-step photographs, 1,660 in all.

In the 14 chapters are hundreds of home-maintenance jobs all the way from how to use a hammer to instructions on using power tools. Some of the subjects are building shelves, storage walls, refinishing floors, remodeling old chairs, electrical repairs, painting and wallpapering, and refinishing furniture. The book is based on nearly 30 years' experience by the editors of *Better Homes & Gardens* magazine in finding the best ways to solve home-repair problems.

February's the big farm-planning month. I know of no book more important to any farmer's planning than **Hunger Signs in Crops** (The American Society of Agronomy and the National Fertilizer Association, 616 Continental Bldg., Washington 5, D.C., $4.50). Take time to read it, and study the color photographs and charts that show the influences chemicals have on plant growth. The

book was prepared by a committee of outstanding agronomists and soil scientists under the chairmanship of Dr. Firman E. Bear of Rutgers.

There should be a copy in every third or fourth farmhouse across America.

If you're a game-bird enthusiast, you will get some rare evenings out of **Scatter-gunning** by Ray P. Holland (Alfred A. Knopf, Inc., 501 Madison Ave., New York 22, New York, $5). Here is a tooth-pick-in-mouth recital of the author's experiences in bagging bobwhite quail, ruffed grouse, pheasant, woodcock, partridge, wild turkey, duck, prairie chicken, and all the other "sky-rollers." Other sections deal with gun loading, methods for hanging game, waterfowl weights, and those all-important manners in the field.

Ever stop to think about the church janitor? We're inclined to grunt at him on Sunday mornings when the "meeting-house" is only 62 degrees, or a leak shows in the vestry-room plaster. Now, Roger C. Witman has written **The Church Maintenance Manual** (Doubleday & Co., 575 Madison Ave., New York 22, New York, $3). This tells the janitor how to take care of church windows, chimneys, and doors, how to store linens and vestments, clean the church interior, repair stains, control insects, and take care of the grounds. It is a compact, meaty volume that will not only give the janitor and church-service committee a lot of good tips, but some excellent alibis to pass on to the trustees.

February is one of the months when a bowl of nodding blue or lavender African-violets looks awfully good in the bay window. There are two excellent new books out on the growth and care of these plants: **The Complete Book of African-Violets** by Helen Van Pelt Wilson (M. Barrows & Co., 114 E. 32nd St., New York 16, New York, $2.95), and **All About African-Violets** by Montague Free (Doubleday & Co., New York 22, New York, $3.50). The Montague Free volume has many more photographs, in both color and black and white, which account for the extra price. Once you get the knack of planting those hairy leaves, they spread like prairie dogs.

Ever stand around the door at a barn dance, wishing you had the nerve to go out there and try it? Here's your book, then. It's **Square Dance** by Ralph J. McNair (Garden City Books, 575 Madison Ave., New York 22, New York, $1.50). This is pocket-sized, 180 pages, and gives detailed information for every step from "allemande left" to "shoot the owl," Virginia Reel, and "weave a basket." Practice in the living room, kitchen, or a cow stall with this until you're do-si-do and half-promenade perfect, and ready for any square dance.

Square dancing, welding, or planning the fight against next summer's "hunger signs," we'll never really get far away from Asia, the Near East, and their war-breeding "trouble spots." For a clear, humane understanding of the land problems, the Asiatic farmer's yearning for knowledge, the rural living conditions in the vast area between Turkey and China, no book has been written to match **Strange Lands and Friendly People** by William O. Douglas (Harper & Bros.,

[*Turn to page 20*

Value, Variety, Versatility
...in Travis Court Traditional

Did you know that you can get "by Drexel" craftsmanship in a magnificent bedroom group of mahogany combined with other cabinet woods for a very modest price? See these three Travis Court starter pieces: panel bed—twin or double, dresser with mirror, and chest. Or choose from 30 additional open stock bedroom pieces—and 67 pieces for your dining room, all purposefully designed to make the most of every inch of floor space. Travis Court is only one of many lovely Drexel groupings, styled and priced for each of your rooms. Insist on the "by Drexel" brandmark—your proof of value, variety and versatility.

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B.F.Goodrich

tires cut costs, save time at Forsgate Farms

FORSGATE FARMS is a wide expanse of fertile, lush land located 12 miles south of New Brunswick, N. J. Here are famous pure-bred herds of 700 Holstein and Guernsey cows, flocks of over 6,000 pedigreed White Leghorn chickens, a modern milk-processing and ice cream plant. Here, too, are the hundreds of acres of grain used to feed the Forsgate herd.

At Forsgate Farms the newest farming methods are employed. Emphasis is on producing quality products through using the finest equipment and efficient methods. Fourteen tractors are at work on the farm together with 20 wheeled farm implements. The farm owns and operates 74 trucks, including cattle and refrigeration trucks and delivery units.

Seventy-four trucks are used for general farm work, cattle hauling and delivery of dairy products at Forsgate Farms.

Loading a prize Guernsey, Glenburnie Majesty's Actress, for shipment. A champion cow, she has never been beaten in her class.

Notice the tractor below. It's equipped with Forsgate's first choice tire—B. F. Goodrich. This is the tire that provides shoulder-to-shoulder traction. It's the tire that outpulled other leading brands in test after test. The reason for this superior traction is the unique construction of the tread. Each curved cleat has an arrowhead nose which bites into the soil. Because the curved cleats are evenly spaced from shoulder to shoulder, they take a firm grip on the soil, drop dirt free. Every turn of the wheel counts. You get maximum traction.

Power-Curve cleats are actually higher in the center than the cleats of the other two leading makes. They can be built higher because their special curve prevents bending and scrubbing. That's why J. Forster Abeel, President of Forsgate Farms, says, "When we purchase replacements for our farm tractor tires, they are always B. F. Goodrich tires. We prefer these tires."

Truck tires built with patented nylon shock shield

Every tire in the B. F. Goodrich line has construction features which give long life and lower cost. B. F. Goodrich truck tires such as those used at Forsgate Farms have a nylon shock shield in all tires with 8 or more plies. Extra-strong, more elastic nylon absorbs the shocks and protects the cord body. Tires wear longer. You get more recaps. And only B. F. Goodrich offers this protection.

About 40,000 miles before recapping and an extra 40,000 miles after recapping is the average of BFG truck tires at this farm.

Farm workers find they get better traction and longer wear with BFG Power-Curve tires.

For any tire need, for tractors, implements, cars or trucks, you can save by calling on your B. F. Goodrich retailer. *The B. F. Goodrich Company, Akron, Ohio.*

WESTARCH KEEPS B.F.Goodrich FIRST IN RUBBER

NEW *chemical builds soil structure overnight*

An innocent-looking gray powder, mixed with the soil, may be the answer to a lot of our toughest tilth and erosion problems

An important new farm chemical will be available late this year. Called Krilium, the finely ground gray powder tends to clump soil particles together in a way that could only be duplicated by returning soil to virgin grass for many years.

Expected rates of application are from 400 to 2,000 pounds per acre—but the price won't permit a farmer to go out and spread it on 40 acres just yet. Right now the chemical's possibilities are in correcting certain trouble conditions.

Its maker, Monsanto Chemical Company, claims it will do these things:

Soil aggregation which improves soil structure can be doubled or tripled. Miami silt loam, a timber soil, usually has about 25 percent of these medium-size aggregates so important to good soil tilth. After some Krilium was mixed in, this figure jumped to 95 percent. This means the soil will take up moisture more rapidly—reducing runoff, saving soil, and saving more moisture for the crop.

The soil will hold this increased moisture longer, since evaporation from the surface is cut 30 to 40 percent. Also, this improved clumping of the soil particles gives a loose, friable mulch with less tendency to crust. And the soil can be tilled when it contains more moisture.

Soil air space is increased, which gives plant roots a better supply of oxygen and greatly encourages soil-microbe activity. Soil temperatures are thought to be more favorable and roots can penetrate the chemically treated soil more easily.

Important to remember here is that the poorer the physical condition of the soil, the greater will be the effect of this chemical. Conversely, a soil which is already close to ideal tilth will benefit little.

The greatest immediate use for this chemical probably will be in soil-erosion control and the improvement of soil tilth where the costs can be justified, such as in certain types of vegetable growing.

Imagine sprinkling some of this material on a particularly tough spot in a grass waterway you're trying to get seeded, and, despite heavy rains, having the soil stay in place until the grass takes over. Erosion control is best accomplished by mixing a small amount of Krilium into the top inch or two of the soil.

Over-all tilth of the soil can be improved by mixing heavier applications of this new chemical 6 inches or so deep.

Field tests at the Ohio Experiment Station showed increases in corn and oats yields as well as those of a number of vegetable crops. No one knows for sure how long the improved structure will last—after two seasons there is no apparent change in Ohio soils so treated.

Prof. William Martin of the Ohio College of Agriculture has worked with Krilium since its discovery. He sees a great future for it in erosion control and in soil aeration. He points out that it will not be a *substitute* for legumes in the rotation, however. That's because only legumes can supply nitrogen-rich organic matter throughout both the surface and the deeper soil layers.

Key to use of Krilium for improving soil condition is complete mixing through the soil. This probably can be accomplished easiest at planting time—either with a disc harrow or a rotary tiller. The soil must be moist enough to crumble well. The effect is almost immediate. The Krilium is spread, then worked in. For 24 hours the soil is let stand, then reworked—the more the better. Beautiful mellow soil results.

It is hoped that equipment in common use—such as drills and fertilizer spreaders—can be adapted to apply it. Mixing with fertilizer is being explored as a possible way to get a thorough spreading job.

Here are the important uses foreseen for Krilium:

Erosion control: At Dixon Springs Experiment Station in Illinois, water and soil losses were practically none from a treated plot after a 2-inch deluge. The untreated check plot lost the equivalent of several tons of soil per acre and a large percent of the water which fell.

It may also prove of use against wind erosion.

Large-field uses: Small amounts on the surface or drilled in may aid in seedling emergence, in soils that crust badly.

Where plant food is ample, crops should respond to improved structure in many soil types.

Greenhouses: Produces surface mulches. Improves soil aeration for potted and bench plants.

Home gardener: Lawns and gardens benefit from improved soil structure. END

EVEN IF YOU HAD WINGS . . .

Changing screens & storm windows would be an awful nuisance—

But — Cinco Thermoseal WINDOMATIC COMBINATION WINDOWS not only eliminate this seasonal changing forever — they give you many wonderful additional advantages, too!

- A home that's up to 15° cooler in summer—warmer in winter.
- Rainproof, draft-free, filtered screen ventilation regardless of weather or season.
- A cleaner, safer, more comfortable home.
- Completely weatherproof window openings.
- Pay for themselves by saving up to 1/3 in fuel.

See for yourself all the wonderful new convenience and comfort Windomatic Combination Windows can bring you. Free demonstration in your home, without obligation. Call your Cinco or Thermoseal dealer or mail coupon below.

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Only COLGATE DENTAL CREAM

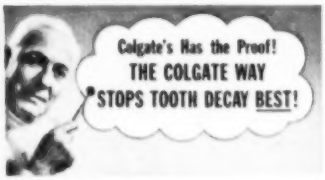
HAS PROVED SO COMPLETELY IT

STOPS BAD BREATH*!

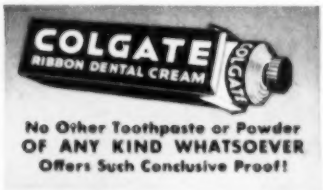
*SCIENTIFIC TESTS PROVE THAT IN 7 OUT OF 10 CASES, COLGATE'S INSTANTLY STOPS BAD BREATH THAT ORIGINATES IN THE MOUTH!

For "all day" protection, brush your teeth right after eating with Colgate Dental Cream. Some toothpastes and powders claim to sweeten breath. But only Colgate's has such complete *proof* it stops bad breath.*

Colgate's wonderful wake-up flavor is the favorite of men, women and children from coast to coast. Nationwide tests of leading toothpastes *prove* that Colgate's is preferred for flavor over all other brands tested!



Yes, science has proved that brushing teeth right after eating with Colgate Dental Cream stops tooth decay *best!* The Colgate way is the most thoroughly proved and accepted home method of oral hygiene known today!



Get* PURE, WHITE, SAFE COLGATE'S *Today!

The farmer's Washington

By Richard Wilson

- **Here is Taft's stand on farm programs**
- **For the future: Unlimited markets?**
- **Program for perishables still a mystery**

Taft's stand. A lot has happened in the life of Senator Robert A. Taft in the past couple of years. One thing is that he has studied the farm problem and made up his mind about it.

Taft's main interest is in the general picture of government—how to run it over-all, budgets, taxation, and finance. Two years ago he devoted his full energies to revisions of the Wagner Act to give labor as well as management some responsibilities in collective bargaining.

Now his mind has turned to the farm problem as he campaigns for president. And, as usual when he studies a problem, he develops some comprehensive views. These are the conclusions on which he stands.

Price supports are required, but on a flexible basis, and probably fixed from time to time by an agricultural board. Such supports should be moderate, large enough to protect the farmer's purchasing power, and not so large as to encourage overproduction.

He opposes government production-control measures, but has conceded that in an emergency such controls might be required.

He opposes a guaranty to farmers of 100 percent of parity, though he believes government policy ought to aim toward that price.

Taft supports the cooperative movement, though he says that there is some risk that it may become too powerful, just as he thinks labor unions became too powerful. He favored the tax amendments passed at the last session of Congress which whittled away at the preferred position of cooperatives.

He strongly supports the rural-electrification program. But he says there is no justification for government loans where electric power is already available at a fair price.

Taft urges that increased production and marketing are the keys to the farmer's future prosperity. Government should help farmers sell their products abroad, he says, and expand its research programs to find new industrial uses for farm products.

"I am a great believer in the constant increase of livestock agriculture and the increased sale of animal products to the American people," Taft says.

"If we could increase the sale of animal products by a small percentage, there wouldn't be any surplus grain. Animal products are better food and more necessary to give completely satisfactory nutrition. From the farmer's standpoint, it is the type of business which is safer and not so subject to violent price fluctuations. It tends to improve and build up our greatest heritage, productive soil."

Prosperity unlimited? For farmers who worry a good deal, perhaps a little optimism now and then is not a bad thing, if not taken in too-large doses.

The census bureau and the U.S.D.A. are providing such a dosage right now, but farmers ought to swallow it carefully. The main point is that our population is increasing at such a rate that there will be a sharply increasing demand for farm products.

Maybe the ability to produce those products will increase at a greater rate. Maybe something will go wrong with the whole economic system, and a big population will have to reduce its standards of living and not be able to buy all the farms can produce.

But, on the basis of population alone, the future looks good. The experts think the United States population will progressively increase and hit 190 million by 1975. If people keep on eating about the same as they are now, that will mean a demand for 25 percent more food.

In 1975 all the milk produced now would be required plus the equivalent of that produced now in New York, Michigan, and Wisconsin.

By 1975, on the same basis, we would need all the pigs produced now, plus the equivalent of those now produced in Iowa and Nebraska.

Fifteen billion more eggs would be called for. And so on.

It would take some 100 million acres of land to produce this stuff, at present production rates. If demand is to be met, production methods must be made more efficient. Theorists can spin off into all kinds of dreams. The trend may just have to continue toward bigger, more efficient farms. The cooperative movement may have to grow on a scale which would compete with some of the huge state farms of Russia.

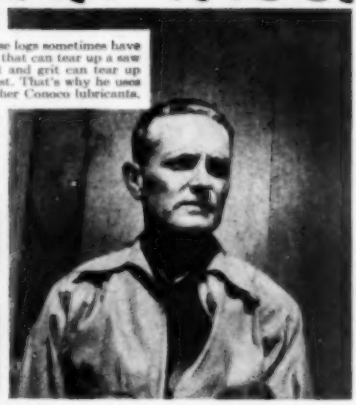
New water projects on an undreamed-of scale may have to be brought in before this century is out.

All this ought to be heartening, in some way, to the man who today finds his costs eating up his profits. Maybe his sons and grandsons will be operating great ranches of land with new and undreamed-of laborsaving devices. It's a

[*Turn to page 18*

THE TANK TRUCK

Dub Newsom says these logs sometimes have nails and wire in them that can tear up a saw in 2 seconds. And dirt and grit can tear up an engine almost as fast. That's why he uses Conoco HD oil and other Conoco lubricants.



Mr. Newsom inspects 2x4's, piled up for air drying. He has used Conoco Products for more than 10 years.

Two Million Feet a Year!

As a youngster, Douglas Newsom was a very busy boy. Most of the time it seemed he must be in two places at once, so somebody once said, "That can't be just *one* boy—he must double himself!" Well, the next day, he was "Double" Newsom . . . and the following day he was called "Dub." He's been "Dub" Newsom ever since.

And Dub Newsom is *still* doubling himself! Today, for instance, one half of him runs a 300-acre farm near Ore City, Texas, where he grazes a fine herd of grade Herefords. The other half operates a portable sawmill, with which he turns out more than two million feet of air-dried lumber a year.

Dub Newsom expects double work out of his machinery, too. And he seems to have found a way to get it. Here's what he says:

"The power unit in my sawmill cost $5,000, and I surely want to protect this kind of an investment with tested lubrication. So I've used Conoco lubricants for 10 years.

"One thing that *really* sold me was my experience with Conoco Heavy Duty oil in a 120-hp Continental Red Seal engine. I used this engine for four years . . . over 8,000 hours of carefree operation . . . and I never had to adjust the tappets, or *do anything* to that engine!

"Another clincher was the operation of my Chevrolet lumber truck . . . 89,000 miles of full-load operation over all kinds of tough, dusty roads . . . and only *one* valve-grinding job! I attribute this remarkable achievement to the quality of your HD oil. With this perfect lubrication, I've almost eliminated repair bills."

"50,000 MILES – NO WEAR!"

After a punishing 50,000-mile road test, *with proper crankcase drains and regular care*, engines lubricated with new Conoco Super Motor Oil showed *no wear of any consequence* . . . in fact, an average of less than one one-thousandth of an inch on cylinders and crankshafts. AND gasoline mileage for the *last* 5,000 miles was actually 99.77% as good as for the *first* 5,000! This test proved that new Conoco Super, with Oil-Plating, can make your cars and trucks last longer, perform better, use less gasoline and oil.

Pork Steaks Creole

. . . by Mrs. Warren Hoeren
Remsen, Iowa

4 pork steaks
shortening for browning steaks
¾ cup diced green pepper
#2½ can tomatoes
½ cup raw rice
1½ teaspoons salt
⅛ teaspoon pepper
¼ cup water
½ cup chopped onion

Brown pork steaks on both sides in heavy skillet. Remove steaks from pan. Pour off half of melted fat. Saute green pepper and onion in fat. Add tomatoes, raw rice, salt, pepper, water and browned pork steaks. Cover and simmer over low heat 1½ hours, stirring occasionally. Serves 4.

Send your favorite recipes to Mrs. Annie Lee Wheeler, Dep't S, Conoco Cafeteria, Ponca City, Okla. A $7.50 pair of Wiss Pinking Shears awarded for every recipe published with your name. All recipes become property of Continental Oil Company.

FARM KITCHEN

Bin on Wheels

Save labor and scooping by mounting an old combine grain bin as shown, says Paul Reiss, Wilcox, Nebr. Use for unloading combine, grinding feed, or shelling corn. You can haul it anywhere with a tractor.

Makes Ridge for steering

At first cultivation with tricycle tractor, attach two covering shovels from planter to rear center sweep-shank. They throw up ridge in furrow center, make steering on second cultivation easy, says Ewald Riethmeyer, R. 1, Thrall, Texas.

SAWS FOR IDEAS! Send your original ideas to *The Tank Truck*, Dep't S, Continental Oil Company, Ponca City, Okla., and get a genuine $10.25 D-15 Henry Disston Hand Saw for every idea that's printed!

CONOCO
YOUR CONOCO MAN
CONTINENTAL OIL COMPANY

"For a tasty 'makin's' cigarette, I roll 'em with PRINCE ALBERT"

"PRINCE ALBERT MAKES MILD, RICH-TASTIN' CIGARETTES AND THE CRIMP CUT IS JUST RIGHT FOR ROLLING"

Red Foley

STAR OF "GRAND OLE OPRY"

"THERE'S LOTS OF REAL PIPE SMOKING COMFORT IN EVERY TIN OF PRINCE ALBERT"

Howard Smith

With Prince Albert, the Bite's *Out*—the Pleasure's *In* and there's more tobacco in every tin! P. A. is specially treated by the patented* "No-Bite" process to insure you against tongue bite.

Get P. A. today!

*Process Patented July 30, 1907

THE NATIONAL JOY SMOKE

MORE MEN SMOKE

PRINCE ALBERT

THAN ANY OTHER TOBACCO

Tune in "Grand Ole Opry" Saturday Nights on NBC

R. J. Reynolds Tob. Co., Winston-Salem, N. C.

Farmer's Washington

[*From page 16*]

nice thought for the new year, and very popular around Washington right now. Secretary Brannan and the other big thinkers of U.S.D.A. are talking it up most of the time.

Farm taxes. Farmers will pay more taxes, like everyone else. But there are some changes in the new tax laws which help them. Profits realized from sales of livestock held for draft, breeding, or dairy purposes can be treated as capital gains.

Excise taxes were removed on certain automotive parts and accessories used in the repair and replacement of farm equipment. (This does not cover, however, spark plugs, storage batteries, leaf springs, coils, timers, or tire chains.)

Though a 2-percent tax on diesel oil was imposed, farmers were exempted from it on oil used for farm purposes.

Perishables. It probably won't be the Brannan Plan, but the experts in and out of Congress are still studying some kind of a program to meet the problem of how to stabilize profits in this field.

Since 1936, a new congressional study shows, $1,489,705,000 has been spent by the federal government to support the prices of perishable farm products. These include potatoes, eggs, dairy products, pork and lard, fruits, and vegetables.

The Senate Agriculture Committee has issued a 45-page booklet discussing the whole subject. Several remedies are proposed, such as direct payments to producers or consumers intended to increase consumption, programs for developing international markets, marketing agreements, and so on.

No one can agree on just what should be done. But it is agreed that some kind of a new program will have to be worked out.

Farmers' defender. Chairman Harold Cooley of the House Agriculture Committee decided not to take lying down the charge that farmers are lining their pockets at the expense of city folk.

He had a 9-page statement prepared, replete with charts, in which he contends that the federal farm programs have made possible abundant production and stabilized prices which actually have saved consumers billions of dollars over the years.

Even in this high-price period, he says, only three major farm products—cotton, beef, and wool—are higher than in 1948. Prices of 25 other commodities are lower than in 1948.

Newspapers, magazines, radio, and government officials were blamed by Cooley for spreading misinformation and distortion about the farmer's income.

"Whatever the answer may be as to what has caused the drastic increase in consumer prices in the past 18 months," Cooley said, "it is quite clear that the increase has not been caused by farmers' receiving any excessive or unusually high prices for their products."

On the contrary, he argued, orderly production has been made possible by the farm programs. That has removed the scare element, and brought about abundant production which has kept farm prices much lower than they otherwise would have gone, he claimed. **END**

"WE WOULDN'T FARM WITHOUT 'Cat' Diesel Tractors"

"We couldn't farm without 'Cat' Diesel Tractors. We've proved they save 60% on fuel bills, and do at least twice the work of any other tractor of equal horsepower on the place." ***E. A. J. Wick of Hutchinson, Minn.*** (His son, Gayle, is shown above.)

"I wouldn't farm without my 'Cat' D2 Tractor . . . it operates for less than my smallest gasoline wheel tractor, yet has ample power for the big jobs. Our wheel tractor burned 25 gallons of gas daily, pulling 2-14" bottoms. This 25 drawbar h.p. D2 (new models have 32 h.p.) pulls 3-14" bottoms on 15 gallons of Diesel fuel."

Howard Myers, York, Pa.

■ Each of the men shown here farms with a "Caterpillar" Diesel Tractor. "Caterpillar" ownership has netted them extra savings in fuel, manpower and field time . . . savings that would not have been possible with ordinary farm tractors. All agree, "We wouldn't farm without 'Cat' Diesel Tractors." Look forward to owning one. Talk it over with your "Caterpillar" Dealer. Since "Cat" Diesel Tractors are vital for national defense as well as other vital industries, you may have a short wait for delivery. Please be patient. You'll find them well worth waiting for!

CATERPILLAR TRACTOR CO., Peoria, Illinois

"Wouldn't farm without a 'Cat' Diesel Tractor . . . nor would I sell mine for $20,000 if I couldn't get another. This wet bottom ground wouldn't raise much without the D4. In addition to our regular farm work, we've cleared about 250 acres of timberland with the D4. Use it more than any other tractor on the farm."

Fred Thomsen, Council Bluffs, Ia.

CATERPILLAR

REG. U.S. PAT. OFF.

Diesel Farm Tractors

DIESEL ENGINES
TRACTORS • MOTOR GRADERS
EARTHMOVING EQUIPMENT

NEW PREFINISHED FLOORING MAKES IT EASY TO HAVE

Beautiful Oak Floors

Your choice of Block, Strip, or Ranch Plank

Just lay Prefinished Bruce Oak Flooring right over your old floors . . . no sanding or finishing

Now you can give your home new beauty at low cost with a *prefinished* Bruce Hardwood Floor. Completely finished at the factory with the famous Bruce "Scratch Test" Finish, this highest quality oak flooring can be nailed right over old floors. It's ready to use as soon as laid. No messy, expensive sanding and finishing on the job.

Naturally beautiful—It's the most beautiful, most durable floor you've ever seen. The warm, natural coloring of superbly finished oak harmonizes with any room furnishing plan. You have your choice of three lovely designs: modern Bruce Block (parquet) as pictured above . . . distinctive Bruce Ranch Plank with walnut pegs . . . or ever-popular Bruce Strip.

Moderate in cost—A new Bruce Hardwood Floor will cost you less than a good rug or carpet. Easy to keep clean and beautiful, too. It's just the thing to use in fixing up or adding a room, and there's nothing finer for a new home. Ask your lumber dealer for cost estimate. Mail the coupon below for literature with room photos in color.

MAIL COUPON FOR LITERATURE

E. L. Bruce Co., 1642 Thomas St., Memphis 1, Tenn.

Send me color folder on Bruce Hardwood Floors
☐ for installation over old floors ☐ for a new home

Name _____

Address _____

City & State _____

BRUCE HARDWOOD FLOORS

Books

[*From page 13*]

49 E. 33rd St., New York, $4). I picked this book up and started to read it casually as "another travelog by another politician." But when I'd finished it I wrote the publishers and said, "Here may be the farm book of the year."

So many books about Asia being written by the "experts" are slicked-up rewrites of old newspaper stories, with an "exclusive" twist, such as: "I talked confidentially with the Barawana of Speared Tiger. He showed me his polo ponies, his 27 wives, and the new tractor he is buying for his 18,000,000 peasants. The polo ponies were very pretty. I believe, confidentially, that democracy is on the march in Speared Tiger."

When Justice William O. Douglas of the United States Supreme Court headed for Greece, Iran, Iraq, Lebanon, and India in the summer of 1949, and again in 1950, he wore his Washington State ranch duds, and beelined for the farms and small villages. When he saw a farm, he knew what he was looking at. When he talked with the Jebel el Druze, he talked of fertilizers, contour plowing, and cooperatives. In short, Justice Douglas circumvented the travelog hokum of the "Barawana of Speared Tiger" boys and comes up with the most meaningful book on the Far East and its problems that I have read. Every freedom-loving American farmer should read it. **END**

Why you say it!

Every cattle farmer, whether he follows the methods of the Old West or not, knows that an unbranded calf is properly called a *maverick*.

This term grew up in the heyday of the unfenced range. It seems that one Sam Maverick migrated from Massachusetts to Texas in the early days of the beef trade. An innocent, trusting person and a humanitarian as well, he refused to brand his calves. But his more worldly neighbors were not slow to take advantage of him. When one found an unmarked calf, he would laugh: "There's one of Maverick's. Let's put our own brand on it!"

From a purely local custom, the practice of using Sam's name to stand for unmarked calves spread through the West. —*Boyd G. Wood.*

This Illinois Farmer Says:

"I CAN ALWAYS DEPEND ON FIRESTONE OPEN CENTERS TO TAKE ME THROUGH"

MORE AND MORE OPEN CENTER BUYERS *Choose* Firestone CHAMPIONS

"I farm 240 acres of black loam, and I've found that there are times when I need tires with extra traction to get my work done. I choose Firestone Open Centers for my farm, because they have the traction that will always take me through. In my opinion they're the best tractor tires a farmer can use."

LAWRENCE O. LARSON
ORION, ILLINOIS

THERE's only one sure way to tell the difference between tractor tires, and that is to put them to work. On any job, you can soon see that the Firestone Champion Open Center outpulls all other open center tires.

From the tractor seat you'll soon see *why* it outpulls all other tires. It's the only open center tire with Power-Arc traction bars, tapered and curved to take a full-traction bite deep into the ground. And it's the only tire that is designed to cup the soil for a stronger grip and give positive cleaning as well.

Of course if you are one of the million or more farmers who prefer a traction-center type of tire, be sure to get the only traction-center tire ever built . . . the Firestone Champion Traction Center.

Buy Firestone Champions for *your* tractor. You'll find them the best tires you can use.

Always Buy Tires Built By FIRESTONE, Originator of The First Practical Pneumatic Tractor Tire

Enjoy the Voice of Firestone on radio or television every Monday evening over NBC

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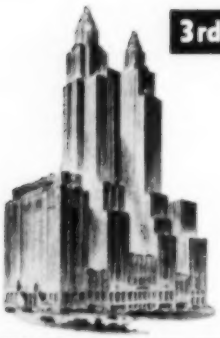


3rd GRAND NATIONAL WINNER

Now you can try Mrs. Weston's

This is Art Linkletter helping himself to a sample of Mrs. Weston's cake just after she had received the $25,000 first prize at the Awards Luncheon in the Starlight Roof of the Waldorf-Astoria Hotel.

STARLIGHT DOUBLE-DELIGHT CAKE

Frosting in the batter...
Frosting on the top...
All made from one frosting mixture
New delight in flavor...new delight in ease

Mrs. Weston uncovered a really big idea when she put her Starlight Double-Delight Cake into Pillsbury's 3rd Grand National Contest. Mrs. Weston makes her cake *and* frosting with just one melting of chocolate . . . with just one creaming of sugar and shortening. And when Mrs. Weston takes her cake out of the oven, she doesn't have to get busy and mix up the frosting. It's all ready to go on the cake.

Wouldn't you like to try Mrs. Weston's recipe—of course, with Pillsbury's Best! To quote Mrs. Weston: "We think Pillsbury's Best Flour always bakes well—that's 'the chief thing'." And what could be more important than that?

MRS. WESTON'S NEW "FROSTED-IN" IDEA

HALF THE FROSTING FOR THE BATTER...
HALF THE FROSTING FOR THE TOP...
ALL FROM ONE FROSTING MIXTURE.

THE $25,000 STARLIGHT DOUBLE-DELIGHT CAKE

by Mrs. Samuel P. Weston, La Jolla, California

BAKE at 350° F. for 30 to 35 minutes.
MAKES two 9-inch round layers.

All ingredients should be at room temperature.

Cream..... 2 packages (3 oz. size) **cream cheese**
½ cup **shortening**
½ teaspoon **vanilla**
½ teaspoon **peppermint extract** until fluffy.

Measure.... 6 cups (1½ lbs.) sifted **confectioners' sugar.** Blend half of sugar into creamed cheese mixture.

Add..... ¼ cup hot **water** alternately with balance of sugar.

Blend in.... 4 squares (4 oz.) **chocolate,** melted. Reserve half of mixture (2 cups) as frosting for baked cake.

Sift together 2¼ cups sifted **Pillsbury's Best Enriched Flour**
1½ teaspoons **soda**
1 teaspoon **salt**

Combine... ¼ cup **shortening** and remaining chocolate-frosting mixture; mix thoroughly.

Blend in.... 3 **eggs**, one at a time. Beat for 1 minute.

Measure.... ¾ cup **milk**; add alternately with sifted dry ingredients to creamed mixture, beginning and ending with dry ingredients. (With electric mixer use low speed.)

Pour..... into two well-greased and lightly floured 9-inch round layer pans.

Bake..... in moderate oven (350° F.) 30 to 35 minutes. Cool; frost with reserved chocolate frosting.

COMING SOON! All 100 prize-winning recipes from Pillsbury's 3rd Grand National Contest in new cookbook. A big book, color pictures, many, many ideas for pies, cakes, breads, cookies, entrees and desserts. Reserve your copy now. Just send 25¢ to Ann Pillsbury, Box 511, Dept. F, Minneapolis, Minnesota.

This is the lady who won the big prize. She is Mrs. Samuel P. Weston and she lives in La Jolla, California. She has two small boys—one, age 3 and one, age 6. Mrs. Weston and her husband dreamed up this recipe one night in their kitchen.

$25,000 Recipe!

Pillsbury ★ GRAND NATIONAL ★ Recipes

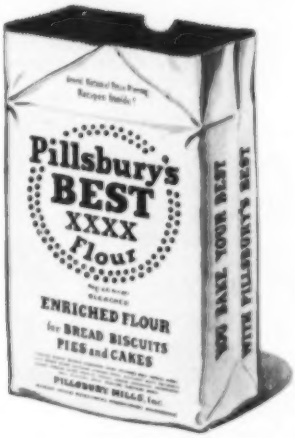
This is the chocolate cake that was judged most important of all the fabulous foods in Pillsbury's 3rd Grand National Recipe and Baking Contest. It is a very high cake, as you can see. Nice and chocolatey, too, with a bit of mint flavor carried into the cake from the frosting mixture. This picture shows how moist and fine this cake is—thanks to Mrs. Weston's idea of putting frosting right into the batter.

Prize-Winning Recipes now at your grocer's

OR WRITE ANN PILLSBURY, BOX 570, MINNEAPOLIS, MINN.

Pillsbury's BEST

The GRAND NATIONAL Flour



1 AN *extra-gentle* BLEACH

Yes, Clorox is more than a gentle bleach . . . it's *extra gentle, extra safe* for linens. Reason? Clorox is free from caustic and other harsh substances . . . made by a patented formula, *exclusive* with Clorox! Result: Clorox conserves costly linens!

2 A *dependable* STAIN REMOVER

Don't discard a costly cotton or linen article just because it's stained. Clorox removes numerous stains from white and color-fast cottons and linens . . . from kitchen and bathroom surfaces, too!

3 AN *effective* DEODORIZER

To make your kitchen and bathroom *smell fresh* as well as look sparkling, simply include Clorox in routine cleaning. Clorox is an effective deodorizer . . . in household cleaning and in laundering.

4 *In addition* CLOROX is one of the world's great DISINFECTANTS

Whether you use Clorox in laundering or in routine cleaning you get the benefit of its germ-killing action. And that means *added health protection* for your family! Remember: Clorox is the most efficient germ-killer of its kind. Let it help protect health for you. Directions on the Clorox label.

You get all 4 in 1 with

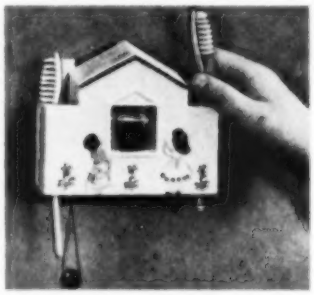
CLOROX

What's new in homemaking

Grand for tenderizing meat cuts. The Dazey Tenderz-it Model No. 190C is simple and easy to use, for you merely roll it, crisscross, over the meat with firm pressure. Makes the more economical cuts of meat more tender. Made of

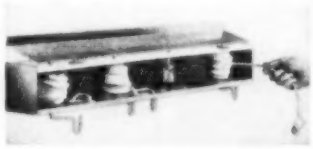
chrome-plated cast aluminum steel, with red, yellow, black, green, or white trim. Found in department, hardware, gift, and appliance stores, at $2.49, or write *Dazey Corporation, Carter and Warne Avenues, St. Louis 7, Missouri.*

Musical toothbrush holder is good way to teach regular tooth care to children. Suction cups on the back of box attach easily and quickly to any surface in your bathroom. The child may wind the



music box by simply pulling the chain, and a nursery tune will play as he brushes his teeth. $3.95, postpaid, from *The Village Store of Lake Placid, Lake Placid 39, New York.*

Clothesline holder will keep lines clean and dry when not in use. "Hide-a-line" is an attractive, heavy-duty, painted box of sturdy steel that can be easily mounted on any wall or outdoors on trees, posts, or the garage. Inside the box are four spools on which you can wind 200 feet of



clothesline. You need string up only as much line as your wash requires—one line or all four. There is a locking device that stretches the line so tight there is no need for a clothes pole. Comes without clothesline. Postpaid, $7.50, from *Bertram Engineering & Supply Co., 3125 Harrison St., Kansas City, Missouri.*

An absolutely safe new high chair. Eliminates danger of baby's tipping the chair or spilling his dish. A safety belt keeps the child from slipping, and an attachable feeding bowl, which keeps food warm 30 minutes, snaps onto the tray. Plastic upholstery is easy to clean. Frame

is made of steel tubing. Becomes a junior chair for children up to 6 years of age. Comes in red, yellow, or gray. Found in furniture stores and specialty shops, about $24.95, or write *Mother's Pal Manufacturing Co., 423 N. 17th St., Kansas City, Missouri.*

Amazing new coffee maker. This glass vacuum coffee maker has gay designs fired permanently into the glass. Comes with two colorful decanters packed with one upper bowl, a filter rod, and a decanter cover. You can brew fresh cof-

fee in one decanter while serving from the other. In department, hardware stores, or postpaid, $9.95, from *Club Aluminum Products Co., 1220 W. Fullerton Ave., Chicago 14, Illinois.*

[*Turn to page 145*

Procter & Gamble's Exciting, New

CHEER

specially made for

"Tough-Job" Washing

Brand-new and wonderfully different! Procter & Gamble's most exciting washday discovery in more than 100 years! CHEER is sensationally *different*—specially made to do "tough-job" washing as no soap you've ever used can do it!

Try it on the washing jobs you dread! Let new CHEER tackle those grimy work clothes . . . badly soiled play clothes...grease-stained towels —all the washing you dread most. When you see how CHEER suds get these "tough jobs" cleaner, fresher in hardest water, you'll see why CHEER gets *all your wash* so wonderfully clean!

Safe for colors, kind to hands! With all its extra washing power, new CHEER is *safe* for colored washables, *kind* to hands. Yes, the moment you open the package and smell CHEER's pleasant, air-fresh aroma you'll want to use CHEER for everything you wash.

Double-Your-Money Back if you don't agree that new CHEER does "tough-job" washing better, gets all your clothes CLEANER than any soap you can buy. And new CHEER gets clothes whiter than any leading soap, in hardest water. CHEER not only removes grease and graying dirt, but dulling soap film as well. Try it!

Wonderful for No-Rinse washing, too!

No matter what soap you're using now, CHEER guarantees a CLEANER wash

CHEER IS THE TRADE-MARK OF A SPECIAL ALL-PURPOSE DETERGENT MADE BY PROCTER & GAMBLE © 1952, THE PROCTER & GAMBLE COMPANY

For Trouble-free Water Service

More Buyers Buy Myers!

YOUR MYERS DEALER

. . . knows all types of Myers Water Systems, the special adaptability of each type. Make him your "partner in planning" and you'll never want for water. He's a good man to know!

You'll see many a new year roll around while using the same Myers Water System. And you'll enjoy really care-free water service all the while. That's because Myers builds water systems *right*. No substituting cheaper materials to shave down Myers costs. No slapdash production to "push through" the job. Every unit is fully tested at the factory . . . and fully *guaranteed in writing*. Complete line of Myers Water Systems fits every need and budget. And the same holds good for the marvelous Myers Water Softeners. None but your Myers Dealer offers these great values. Now's the time to see him!

Send for Free Catalogs Today!

THE F. E. MYERS & BRO. CO. Ashland, Ohio

Send free illustrated literature as checked:
( ) Water Systems
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( ) Hand Pumps
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( ) Hand Sprayers
( ) Hay Unloading Tools

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Corn goals going up

The 1952 corn-production goals will require an increase in yields on 89 million acres. That's 3 million more acres than were planted to corn in 1951. A total of 3,375 million bushels is needed, says the U.S.D.A., to supply feeding and commercial needs and to replenish critically low reserves.

•

Since 1940, corn crops in the United States have exceeded 3 billion bushels six times. Previous to 1940, this figure was reached only once (1920).

•

In a few years our goal will be 3,700 million bushels, says Dr. Merle Jenkins, in charge of U.S.D.A. corn investigations. He bases this on the fact that our population is growing at the rate of 2.5 million each year.

With 90 million acres about the limit which we can devote to corn, this will call for an increase in average yield per acre of 8 bushels. This will be a formidable task, points out Jenkins, because we only managed to push yields up 10 bushels in the period which included the advent of hybrid corn. He feels we must intensify the research for better hybrids. We also need to know more about corn nutrition, and must make better use of the things we already know about high fertility for corn, if we are going to supply this tremendous potential need.

•

Use of male sterile single crosses in hybrid-corn production to save the high cost of detasseling has proved a success, says Floyd Ingersoll, manager of the Illinois Seed Producers Association. He thinks that eventually the bulk of hybrid-seed production will come from male sterile singles. Saving in cost will be reflected in better hybrids rather than in cheaper seed.

•

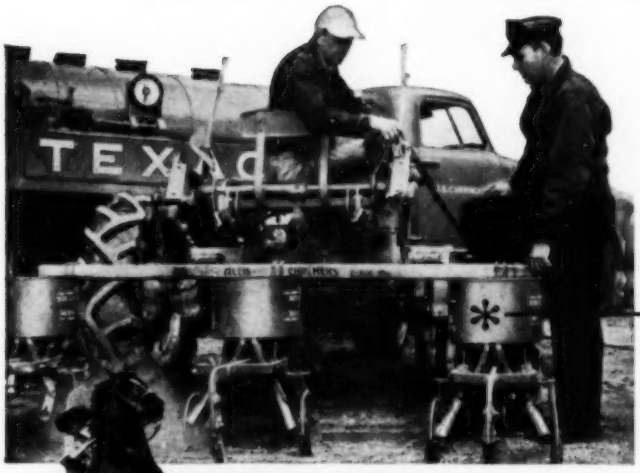
Insecticides for the control of soil insects show promise, according to Dr. J. H. Lilly, Iowa State College. Good rootworm control in corn has been obtained with broadcast application in spray or dust form. Cutworms and webworms in corn have yielded to after-planting applications of low-gallonage toxaphene sprays. Lindane, high-gamma BHC, Aldrin, dieldrin, and EPN-300 all look good.

•

To realize top yields of corn, farmers should plant thickly enough so that the average-size ear at harvest time weighs one-half pound, say Purdue agronomists. Larger ears represent a sacrifice of yield. Most corn varieties should be planted 1 kernel per hill for each 25 bushels which you estimate you can grow per acre.

Sows 40 acres a day

With Multiple Vetch Planter

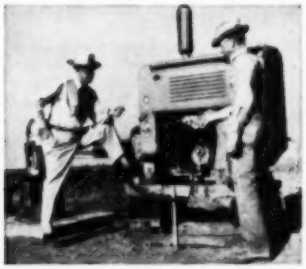


Mr. Joe E. Lewis (left), who farms 360 acres near Sikeston, Missouri, shows Texaco Man W. B. Cunningham multiple vetch planter he put together for about $6.00, not counting the cost of the individual planters.

Mr. Joe E. Lewis, near Sikeston, Missouri, hit on the happy idea of saving time, labor and fuel by mounting three individual vetch planters on a crossbar behind his tractor. With his multiple planter, Mr. Lewis can sow 40 acres a day.

Mr. Lewis has also discovered that *it pays to farm with Texaco Products.*

Rita Jean Lewis, eight-year-old daughter of Mr. J. E. Lewis, puts her horse "Bill" through the paces for Texaco Man W. B. Cunningham.



Working night and day for 10 days at a time, the motor of this water pump gives Havoline Motor Oil a real workout. But Mr. Bill Dooley (right), near Lubbock, Texas, finds Havoline stands up. Havoline is ideal for gas or Diesel engines because it exceeds Heavy Duty requirements. Texaco Man Lloyd Tucker is visitor on left. Mr. Dooley's irrigation system makes possible a bale of cotton per acre.

Mr. George Tinkham (left), near Cape Charles, Va., irrigates his truck farm, using easily movable aluminum pipes to carry the water. Like Mr. Dooley he uses Texaco Products. He likes Marfak lubricant because it sticks to bearings better and longer, doesn't melt down and drip off, dry up or wash off. It seals out grit and dirt from open bearings. Texaco Man Vernon Martin is shown on right.

Friendly visitors when service is needed: that's what Texaco Men are the country over. Texaco Man Gordon Ebbert (right), of Colfax, Washington, has a friendly word with Dick Haxton, prominent farmer, as he fills the tank with Fire-Chief, the gasoline with superior *"Fire-Power"* for low-cost operation.

TUNE IN...Metropolitan Opera broadcasts every Saturday afternoon. See newspaper for time and station.

IT PAYS TO FARM WITH TEXACO PRODUCTS

DIVISION OFFICES: Atlanta 1, Ga.; Boston 17, Mass.; Buffalo 3, N. Y.; Butte, Mont.; Chicago 4, Ill.; Dallas 2, Tex.; Denver 1, Colo.; Houston 1, Tex.; Indianapolis 1, Ind.; Los Angeles 15, Calif.; Minneapolis 5, Minn.; New Orleans 6, La.; New York 17, N. Y.; Norfolk 1, Va.; Seattle 11, Wash.

Texaco Petroleum Products are Manufactured and Distributed in Canada by McColl-Frontenac Oil Company Limited.

Now! Avoid "Tell-Tale Mouth"

(BREATH NOT AS SWEET, TEETH NOT AS CLEAN AS THEY CAN BE)

Ipana keeps your whole mouth cleaner, sweeter, sparkling!

Almost everyone's mouth sometimes tastes stale, furry, unpleasant. It's often a sign of "Tell-Tale Mouth"—teeth not as clean, breath not as sweet as can be. To avoid "Tell-Tale Mouth," brush your teeth with Ipana. Then . . .

Be confident of your smile. Actual dentists' tests prove that brushing with Ipana gets teeth cleaner, more sparkling. And as for reducing tooth decay effectively, remember this: no other tooth paste—ammoniated or regular—has been proved better than Ipana.

Be confident of your breath. Brushing with Ipana after eating helps remove *causes* of unpleasant mouth odor. And Ipana's brisk, refreshing flavor instantly sweetens breath—leaves your mouth feeling fresh, feeling good.

And don't forget your gums. Brush teeth from gum margins towards biting edges. Ipana's active cleansing foam helps remove irritants that can lead to irritation and gum troubles.

Yes, cleansing with Ipana Tooth Paste helps keep your whole mouth healthy. No "Tell-Tale Mouth" for you! Get a tube of Ipana today.

Ipana Tooth Paste

A Product of Bristol-Myers

All around the house

Here are tips to help save yourself some time, steps, and work

● I keep sugar in a shaker for the small children of our family instead of letting them use the spoon. I find that it eliminates waste and enables them to sprinkle sugar on evenly.—*Mrs. L. M., Wisconsin.*

● We had trouble with our drinking glasses when anyone at our house had a cold, so I took an old glass and, using

Photographs: Stanley

bright nail polish, painted a skull and crossbones on it. Now the sick person knows which glass is exclusively his.—*Mrs. C. S., Ohio.*

● To make use of my empty lipstick tubes, I remove the leftover lipstick with tweezers and have an attractive case for carrying bobby pins in my purse. The case is also good for holding needles and pins in my sewing basket.—*Mrs. C. S., Indiana.*

● If any articles in my laundry must be dried quickly for immediate wear, I just wash and run them through the wringer as usual. Then I wrap an article in a dry turkish towel and run it through the wringer again. It's ready to iron immediately.—*Mrs. L. T., Minnesota.*

● When repairing an article that has many small bolts, screws, or other tiny parts, I lay each part on the sticky side of a length of adhesive tape as I remove it. This way there is less danger of losing small pieces and the job of reassembling is easier.—*Mrs. E. M., Michigan.*

● I keep a supply of penny suckers in the medicine chest. When unpleasant sore throats threaten the children, the suckers make tongue depressors to which not even the most fretful child objects.—*Mrs. R. H., Oklahoma.*

● To give stiffness to a handmade belt, I put press-on mending tape between the two layers of fabric. The belt remains firm even after many washings.—*Mrs. L. F., Iowa.*

● When my beverage glasses stick together when being washed in hot water, I put them in the refrigerator for a few moments and they come apart easily.—*Mrs. L. B., Ohio.*

● I made picture frames for small pictures from vacuum-seal-type fruit-jar lids. To make, remove the flat piece and fit the picture to it. Then replace the flat piece and picture in screw piece of the lid. A card-

board circle backing the flat piece will hold it in place. The metal circle frame stays bright a long time, and the pictures can be attractively arranged in groups. They are especially good for children's rooms or to brighten the kitchen.—*Mrs. C. C., Kansas.*

● When painting with textile or other paints where only a small amount of each color is needed, I use soda-pop-bottle caps to hold the different colors. They are easily disposed of and replaced.—*Mrs. R. P., Texas.*

● A warped cardboard card table can be used as a frame for hooked rugs or baby quilts. I remove the top of the table and tack my work onto the wooden frame with carpet tacks. The frame can be folded up and is easily stored away.—*Mrs. G. P., Oklahoma.*

● I use an old worn-out umbrella frame as a collapsible clothes dryer for small items.—*Mrs. P. H., Minnesota.*

● Floor wax rubbed on a snow shovel will keep snow from sticking and make the job of clearing snow much easier.—*Mrs. E. M., Michigan.*

● To make my own clothespin bag, I fasten a pair of oval embroidery hoops in the top of a small flour sack and attach this to a wire coat hanger. The hanger moves along the clotheslines, and the pins are easy to get at when needed.—*Mrs. O. M., Oklahoma.*

● When washing leather gloves, I add a few drops of olive oil to the water. They turn out soft and nice.—*R. W., Missouri.*

● I keep untried recipes in a large envelope which I have glued to the inside of my recipe book. When I have tried the recipes, I discard the ones which I don't like, and copy the good ones in my book.—*C. M., Illinois.*

Successful Farming will pay $5 for each helpful suggestion published. We cannot return unused suggestions.—Editors

To make those washday rips a fable, Insist upon . . . the PEQUOT label.

Fresh, snowy white Pequots do invite sweet slumber, no matter which of the *four* fine quality grades you choose. Each grade is made to suit particular needs and a variety of budgets. For those who want a sheet that will wear a very long time, look well all its life and grow softer with each laundering, we recommend PLUS-SERVICE, our best muslin. More than 144 strong, even, cotton threads to the inch. Woven, double-tape selvages prevent ripping (an exclusive Pequot feature). PLUS-SERVICE is your best buy. In six colors as well as white.

Pequots are now packed in the new, sanitary, cellophane package—look for them at your favorite store.

There's a Pequot Quality Sheet...

AT THE PRICE YOU WANT TO PAY

PEQUOT "PREMIUMCOMBED" Percale—more than 200 combed threads to the inch, the *true* percale. Finest, smoothest, most even weave, beautifully finished. Woven, triple-tape selvages. In white and six lovely colors.

SALEM—more than 130 threads to the inch. Our lightweight muslin, featuring excellent quality and popular price. In white and glowing colors.

PEQUOT MEDIUM PERCALE—more than 180 threads to the inch—our low cost, luxury sheet. In white and six pastel colors.

ALL Pequots have the exclusive, *patented*, colored projecting size tab for easy identification on your linen shelf.

Write for *free* booklet, "How to Buy and Care for Sheets", Dept. S1, PEQUOT MILLS, SALEM, MASS.

See the Pequot exhibit at the "Home Planning Center" in your favorite store!

"The Nation Sleeps on PEQUOT SHEETS"

Your flashlight will stay bright longer with Chrome Protected Burgess Batteries! This exclusive Burgess development curbs internal action when your flashlight is not in use . . . keeps the power fresh and ready. Try Burgess and *see* the big difference!

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WHAT WAS NEW IN FARMING

50 Years Ago

This year *Successful Farming* celebrates the fiftieth anniversary of its founding. To give you readers a few interesting flashbacks on farm life in 1902 and to show how it has changed in 50 years, we are reproducing here two advertisements and some editorial matter appearing in early issues of the magazine. This feature will be repeated several times this year.

Efficient power was necessary then, as now. No mention of piston rings or carburetors, but this: "Horse collars are best fitted to the horses at the harness shop. Galled necks or shoulders affect the nervous system and tend to cause general debility."

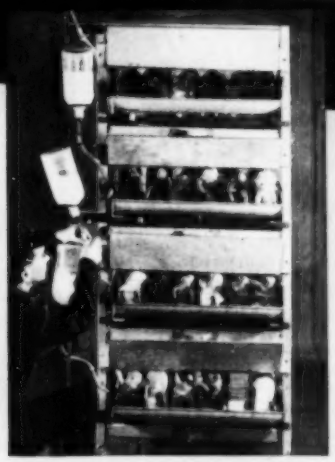
Market weight of animals was an issue. Prof. Charles F. Curtis of Iowa State College, addressing the Iowa Swine Breeders Association, said: "The 1,800-pound bullock and the 200-pound wether have disappeared from our markets, and the overfattened hog, with his extreme weight and waste, is no longer wanted." Curtis also said: "A firm of packers in this state has recently imported several hundred head of an English bacon-type hog and distributed them among their customers for breeding stock."

Poultry was important, too. A sanitation hint: "To cleanse the poultry house and yard, use whitewash, lime, copperas, and carbolic-acid water freely and often."

The farm kitchen concerned *Successful Farming* 50 years ago. "When empty fruit jars begin to accumulate in the early winter, it is an economical plan to refill them with applesauce. Apples are then plentiful and cheap, and the sauce is convenient for use during late winter and early spring, when fresh apples are scarce." Hints for the young housekeeper: "Buttermilk will take out mildew stains." Also, "Bottles are easily cleaned with hot suds and fine coals."

For amusement in those preradio-and-TV days, soap-bubble parties were suggested: "At one of these gatherings the guests, old and young, furnished with clay pipes, stand around a table in the center of which is placed a fancy punch bowl filled with soapsuds. Prizes are awarded to those among the guests who successfully launch in the air the largest bubble, and to those who keep theirs flying for the greatest length of time or send them the highest."

Luxury travel. One of the big Midwestern railroads was advertising "electric-lighted trains" between Chicago, St. Paul, Minneapolis, and Kansas City.



Recent experiments with Terramycin by Pfizer animal nutritionists point the way to a completely new way to raise baby pigs in brooders (as you see in the picture). This promises to revolutionize hog production through larger litters, reduced mortality, and faster weight gains. Here is another example of Pfizer's contribution to better health and nutrition on the farm. For a free booklet describing these experiments, write us.

Terramycin

...from the world's largest producer of antibiotics

Pfizer

Chas. Pfizer & Co., Inc., Brooklyn 6, N. Y.
Headquarters for antibiotics and vitamins
for animal health and nutrition

ALL THAT'S NEW FOR '52 . . . THE GENUINE

Deepfreeze Home Freezer

IN A NEW AND COMPLETE LINE!

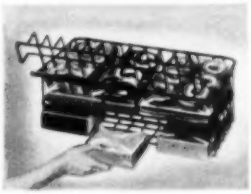
New convenience features you'd expect only from the pioneer and leader in the Home Freezer field!

NEW! THE "MENU-MAKER"

Four one-pint aluminum containers, red, blue, green, and gold, to hold an entire pre-cooked meal or preserve left-overs. Freeze, heat, and serve, all in the same gay, colorful containers. *Exclusive with Deepfreeze!*

NEW! "SILENT SIGNAL"

White light shows when power is on. Red light flashes warning if temperature inside freezer gets too high for safety. This Deepfreeze feature makes it easier to control temperatures correctly for proper preservation of food.



NEW! THE "HANDY BASKET"

Unique, double deck, side-opening basket holds the frozen foods you use most often. Its hinged side swings up for removing foods below without disturbing those above. *Only Deepfreeze Home Freezers have it!*

SIX MODELS AND FOUR SIZES TO CHOOSE FROM!

7, 13 (Illustrated), 17 and 23 cu. ft. sizes made in deluxe models with features you've always wanted. 7 and 13 cu. ft. sizes are also made in popularly priced standard models.

HERE are the finest Deepfreeze Home Freezers ever built! They all give greater storage capacity at lower cost. They all have advanced features for thrilling new convenience. And they are all super-powered to quick-freeze foods and preserve them safely for long periods of time.

Deepfreeze offers you a choice of six models in four sizes. Among them is the one that's "just right" for you, whether your family is large or small. Ask your Deepfreeze dealer to show you how it will give your family better eating with far less effort on your part. And how it will pay for itself in cash savings on vitamin-rich frozen fruits, vegetables and prime meats!

Deepfreeze pioneered the Home Freezer 12 years ago. So Deepfreeze engineers are obviously the most experienced in building Home Freezers. For longer, quieter service, insist on a genuine Deepfreeze Home Freezer!

THERE'S ONLY ONE GENUINE **Deepfreeze Home Freezer**

Trade Mark Reg. U. S. Pat. Off.

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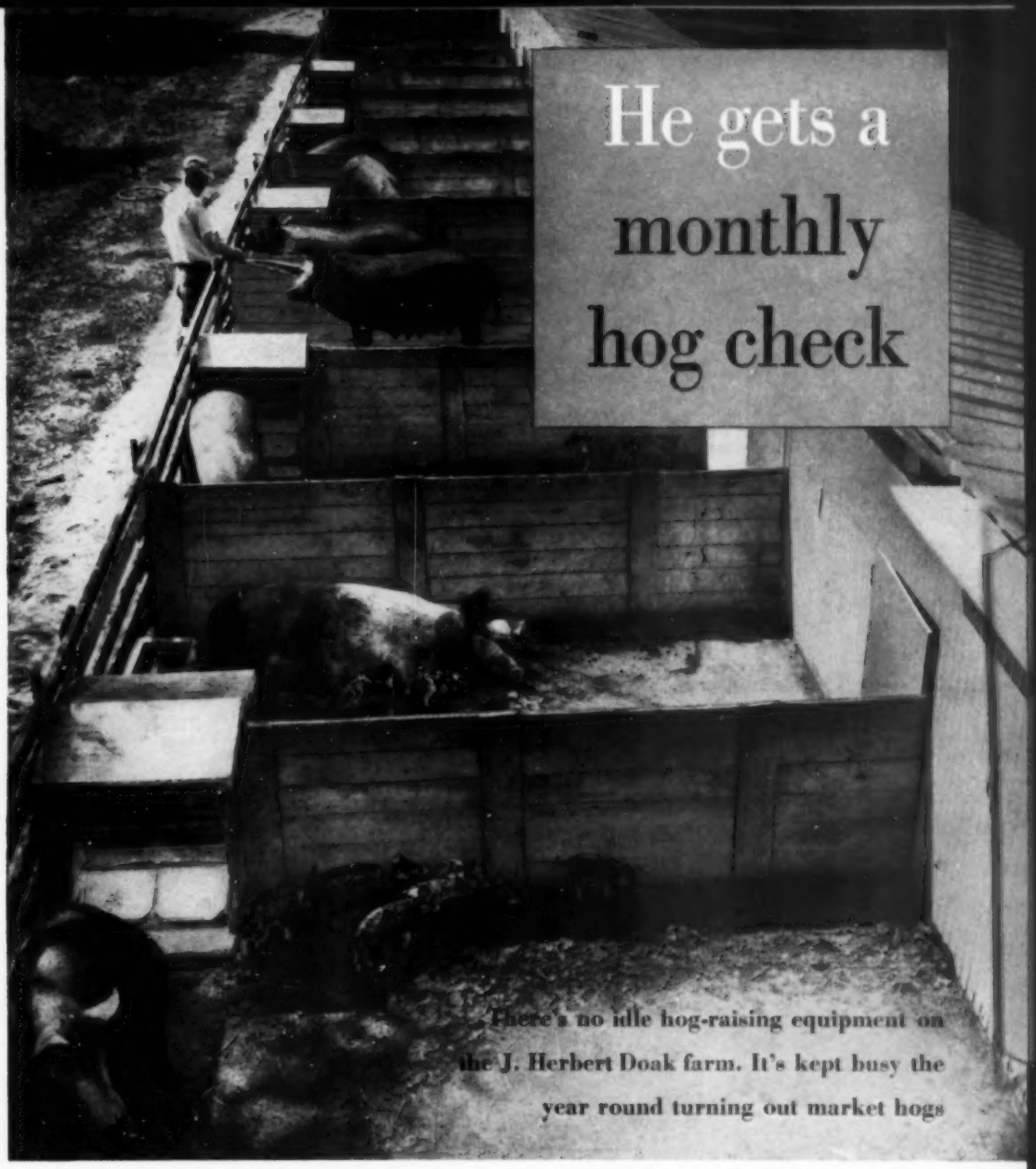
FARM AND HOME FREEZERS • REFRIGERATORS • ELECTRIC RANGES • ELECTRIC WATER HEATERS

All products of Deepfreeze, North Chicago, Illinois

He gets a monthly hog check



There's no idle hog-raising equipment on the J. Herbert Doak farm. It's kept busy the year round turning out market hogs

Multiple-farrowing pens are in use the year round. From 8 to 12 sows farrow every 3 weeks. Waterers and feeders are automatic

By Delmer E. Groves and Vernon Schneider

Editors' note: *Here is one of the most unusual hog-raising systems we have seen. It's quite different from the usual 1- and 2-litter-a-year systems. However, we believe this system has many merits not offered by the conventional ways of raising hogs. Contrary to the belief of many, farrowing pigs every month does not involve extra labor or equipment. Rather, it makes more efficient use of both. Doak is turning out around 1,000 head of market hogs each year with the help of one man! After a 3-year trial, he's sold on his plan for farrowing, raising, marketing hogs. (We've arranged an open house on February 14 at the farm! Details on next page.)*

How would you like to have the regularity of a dairyman's income—*from hogs?* J. Herbert Doak, Wilmington, Clinton County, Ohio, has just that. He's selling top market hogs every month of the year. And he's getting the job done with less labor and equipment than most 1- or 2-litter-a-year hog raisers use.

Any month of the year you visit the Doak farm, you'll find at least five sizes of pigs. They range all the way from baby pigs to market hogs. Here are five basic reasons why

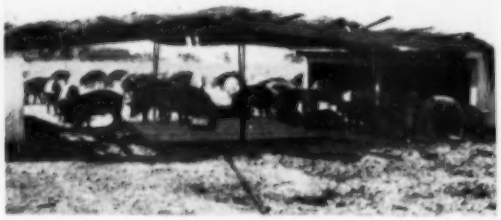
How Doak produces hogs the year round →

Rear doors allow Doak to handle pigs safely—provide cross ventilation

Guardrail in corner helps prevent smashing. Floor slopes down to guardrail. Each pen is equipped for an electric brooder

Sows and litters are moved to pasture 2 to 3 weeks after farrowing. Above pigs have just been weaned. Houses are used for summer and winter shelter. During winter, houses are grouped. Corncobs help keep down dust

Pigs are creep-fed while with sows on pasture. Automatic waterers are set near creep feeders



This inexpensive sunshade provides shelter for hogs from 14 to 18 weeks of age. Two houses are used as ends. Old boards and poles complete shade. An automatic waterer is placed near center of shade

Trees furnish summer shelter for pigs from 11 to 15 weeks of age. Water is piped to automatic waterers

Doak likes this system of raising hogs: (1) It spreads the labor more evenly over a 12-month period; (2) any ideas or improvements can be put into practice immediately; (3) in case of loss, you have a chance to regain it in 30 or 40 days, rather than the usual 4 or 5 months; (4) equipment is in use 90 percent of the time instead of the usual 40 to 50 percent; (5) best results are usually with hogs in groups of 100 or less.

Let's take a closer look at some of the management practices which make Doak's system tick:

A unique multiple-farrowing system enables Doak to farrow 8 to 12 sows every 3 weeks. The number of sows which he farrows over a 12-month period depends on the amount of corn on hand December 1. Doak breeds 1 sow for each 100 bushels of cribbed corn. In this way, the number of hogs he markets each year is regulated by the corn he produces.

His plan is based on a dozen individual farrowing houses (see page 33) placed along the back edge of a solid strip of concrete. Individual exercise pens are attached to the fronts of the houses. The entire strip is covered with macadam. It's cooler than bare concrete in the summer and warmer in the winter. And there's less danger of its getting wet and slick during wet weather.

The floor under each box (farrowing house) slopes down to the guardrail. This slope causes the sow to lie down with her udder facing the guardrail. Baby pigs can then suckle with less danger of being lain on. The pens also provide for electric brooders.

The pigs' eyeteeth are clipped when they are 1 day old. An iron tablet is also crushed in each pig's mouth at the same time. The male pigs are castrated at 2 weeks of age.

A door back of the guardrail allows Doak to handle the pigs without danger to himself. The door also provides cross ventilation when the ventilators along the roof in the front of the houses are open.

The boxes are 7 feet square, 6 feet high at the front, and 4 feet at the rear. Insulated aluminum roofs help keep the heat down during the summer. The entire 12-box unit takes up an 18'x90' space. Each pen has a self-feeder and a concrete drinking trough. Water is piped to the unit and the feeders are filled directly from a truck.

The 12 boxes are lined up on the [*Turn to page 62*

February 14—come see for yourself!

J. Herbert Doak will personally show you his moneymaking hog-raising system—and explain it in detail—at an open house Thursday, February 14. Sponsored by the Clinton County Agricultural Extension Service and the editors of *Successful Farming*, the meeting will get under way at 12:30 in the Clinton County Courthouse auditorium, Wilmington, Ohio. You'll hear Doak and swine specialists from Ohio State University. Then you will tour Doak's farm 2 miles southeast of Wilmington. We'll have coffee and doughnuts at the farm. We'll look for you there, February 14!

Photographs: Pease

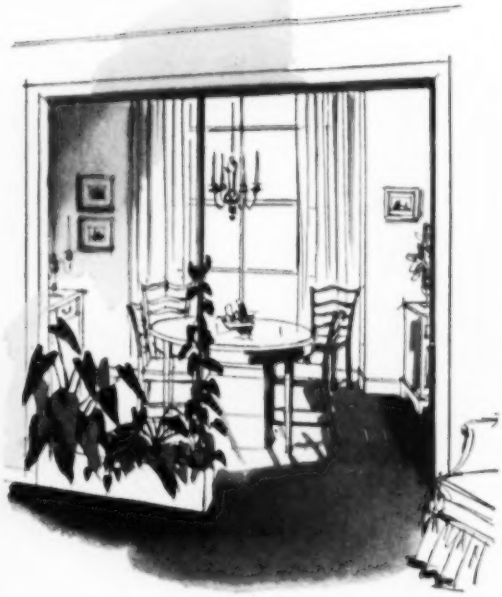
All fattening hogs are run over this scale before marketing. Shipping weights run between 220 and 240 pounds, depending on market demands. Only hogs of the proper market weight are sold. The lighter ones are put back into the fattening pen

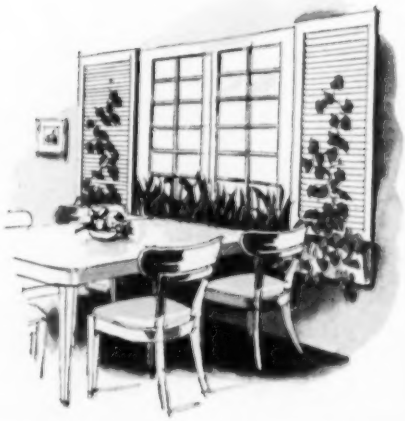
Hogs on full feed are confined to converted barn with a small outside sun porch. Floors are concrete. Crushed corncobs are used for bedding. Pens are cleaned once a week with a manure scoop. Over 100 hogs can be fattened at once in setup

Decorate with growing plants

By Nancy Wilson

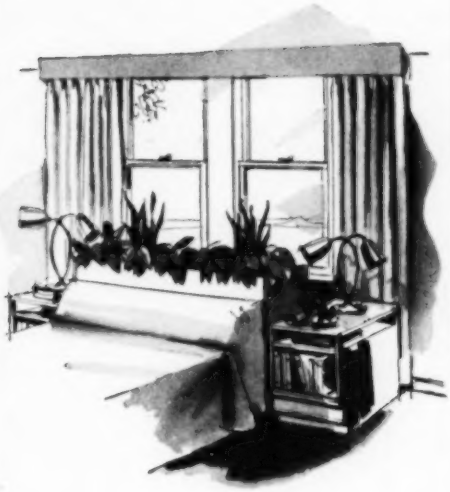
A lacy trellis around your kitchen eating area will provide a wonderfully effective spot to display your trailing vines and blooming plants. Make trellis for each side of window from a lattice-type wire stretched over a wooden frame of 2x2s



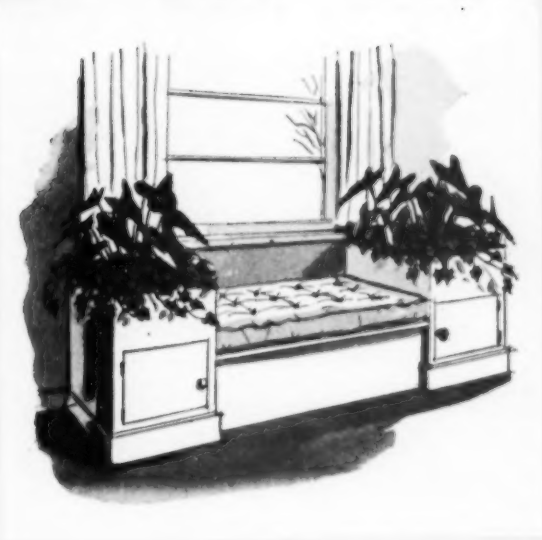


Plants grouped together in a real window box, hung or built on the inside of your kitchen or dining-room windows, will give a summer-porch effect all year round. Louvered shutters on each side of windows are effective substitutes for draperies

An oversized archway can be narrowed simply by building a low wood planter box across half of it. Finish off the end with a pole extended from box to top of arch, then train vines around the pole and fill the box with shade-loving house plants



If your bedroom is small, a good way to vary furniture arrangement is to place your bed against the windows, with a long planter box for a headboard. Extend draperies to outside of night tables



Plants flanking a window seat will add a cheery spot to any room. Build the window seat just the width of window. Then add storage cabinets at each side, with metal plant boxes recessed in the top. The space underneath window seat may be used for extra storage if top is hinged at the back

Dramatic latticework of 1x4s, to close off an open stairway, makes a wonderful spot to display your nicest plants and vines. It also adds additional wall space for your furniture placement

Green and growing things can turn an unsightly radiator into a beauty spot. Cover the radiator with metal screening or grillwork; insulate with asbestos to guard plants from heat

Drawings: Lester Kiss

Before you begin, divide the field by soil area. Several common conditions which should be sampled separately are shown above. Fields where there have been differences in fertilizer treatments, cropping systems, and lengths of time in cultivation should be split

How to take a soil sample

By Z. H. Beers

Spring is a good time to take soil samples. However, you can take them any time of year. The important thing is that you *take* them. You can't afford to be an explorer when it comes to putting on lime and fertilizer.

Instructions for taking soil samples vary from state to state, but if you follow the steps given here, you will get honest samples from which sensible recommendations can be made.

First, make a map of the field. Then separate the ridges from the slopes, severely eroded areas from slightly eroded, knolls from hollows, limed from unlimed, and so forth.

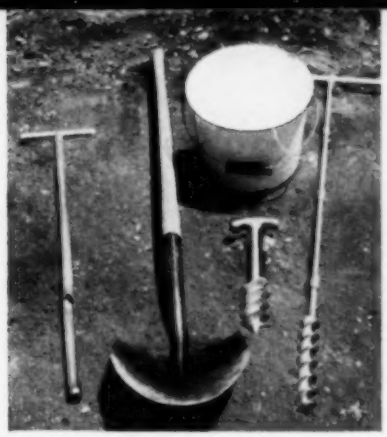
If you don't, your tests stand a good chance of being meaningless. Acid knolls and neutral hollows mixed together would call for too little lime for the acid soil and far too much for the hollows. Parts of fields that have been limed or fertilized recently will need different treatment than the unlimed or unfertilized.

Take clean tools to the field. Pails and shovels that have been used around farm chemicals or fertilizer can throw the test off. A shovel or a garden trowel is a common tool which you can use to pick up the samples.

Collect one composite sample from each area. Although there is no definite recommendation on the size of soil area that can be included in one soil sample, it usually is wise to limit an area to *10 acres or less.* Even if a 40-acre field appears quite uniform, it still is good insurance to take four composite samples from the field.

Take 10 cores from an area. This will give you the best possible composite sample. And because 10 cores are needed from 10 acres doesn't mean that only 1 core would be needed from 1 acre.

Here's a word of caution. Be sure the cores are the same size. A shovelful of soil from one site and a cupful from another would "weight" the sample and not give a true picture of the soil area. If you use a soil probe or auger, there is little problem. With a spade or shovel, make a hole 6 or 7 inches deep, cut a slice with the shovel, and then take an inch-wide piece of that slice from top to bottom for the core you save for the sample. [*Turn to page 134*



1 Shovel, soil probe, or soil auger will make a good sampling tool. Two pails come in handy, one to collect in, the other to carry the samples

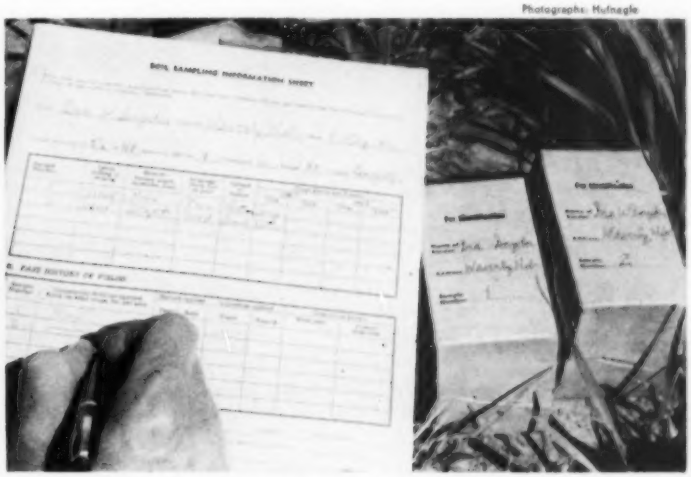
2 This is important — take 10 cores from each soil area. If area is large, split it up into 10-acre sections. Stakes show where cores were picked up in the area above. Try to take the same amount of soil at each location to get the best composite sample

3 Mix all cores from the same area together to get sample on which test will be made. Break up lumps. If soil is wet, you will have to let it dry first. Open paper bags work well for this

4 A pint of thoroughly mixed soil is poured into the container. Here, a box furnished by the testing laboratory is being used. Heavy paper bags will do. Soil is usually screened when it arrives at the laboratory

Photographs: Hufnagle

5 Identification of the sample when it is taken saves lots of mistakes later. At the same time, put number of sample on map of the field



6 The person who interprets your soil tests will need to know: What crops have been grown there recently? How did they yield? How much lime and fertilizer have been used and when? How was the last clover crop? What are your future plans for the field?

KEYS TO more corn NO. 1 OF A SERIES

The cheapest corn you can grow

To collect, see that you have a legume in every acre of small grain. The first of a new series bringing you all the latest and best ways to get the most corn from each acre

By George Johnson

Again the call goes out for more corn—and they're not kidding!

Reserves will be at rock bottom by fall. Yet this follows on the heels of the greatest total harvest for a four-year period in the history of corn.

It is apparent that farmers are going to be called on to produce more corn, not just in '52, but *every* year. It can be done, but not by plowing up more acres or shrinking already tight rotations.

Beginning with "The Cheapest Corn You Can Grow," *Successful Farming* brings you a series of five articles under the theme: "Keys to More Corn."

Everything which can help you produce the most corn has been gathered into this encyclopedia of corn raising—*and here is what you can and should do this month!*

A gold mine in seedings

Don't let a single small-grain acre which will be in corn next year go unseeded to legumes. If you are not seeding your small grain to stand over for hay or pasture, don't sit in the house with your feet on the stove. A green-manure catch crop will pay you almost unbelievable corn returns on time and dollars spent. It easily adds up to the cheapest corn you can grow.

Sown in the small grain, legumes plowed down the following spring have often *doubled* corn yields, and have done even better than that on soils with low organic matter.

Seeding of $1.60 to $4 worth of legume seed per acre will mean from 15 to 25 extra bushels of corn. Ten pounds of sweet-clover seed on an average soil will produce 40 pounds of nitrogen per acre. Enough nitrogen fertilizer (sometimes hard to get) to do an equivalent job would cost $10 or more. Also, with legumes *you work in up to 20 tons of plant material—which helps maintain the crucial humus content of your soil.*

20 to 34 more bushels

In a test running since 1936 at the Ohio Experiment Station, corn following the sweet-clover catch crop in a corn-oats rotation outyielded the nongreen-manured corn in the same rotation 20 bushels per acre.

In Illinois, 20 years of tests with a corn-corn-oats-wheat rotation found that sweet clover in the wheat boosted the first-year corn yields 29 bushels.

In another Ohio test, 6-year corn yields on a corn-oats rotation on well-fertilized soil saw a 34-bushel increase. This was due directly to the sweet clover, as fertility and other conditions were the same.

These are not isolated examples. Wherever good stands of catch crops in small grain have been established, corn yields have responded tremendously.

Higher protein content

You can also figure on an increase in the protein content of your corn. The amount of available nitrogen in the soil controls this protein content. University of Illinois tests on the Morrow Plots showed over 2 percent more protein where sweet clover was grown in the corn-oats rotation. This is worth a bag of soybean meal in each 36 bushels of corn produced.

If you are growing corn too often on the same field, lengthening your rotation to include a small grain will knock out that stalk-toppling pest, the corn rootworm. Other insects like root aphids and white grubs also take a beating where corn is not continuous.

Tops as green manure

Sweet clover has been our most widely grown green-manure catch crop. It produces more of what we're after—nitrogen and total organic matter—than any other plant. It withstands drouth well and produces an abundant growth even on lower fertility levels. It punches holes in tough subsoils and protects the soil surface from beating rains.

In many other ways sweet clover most nearly approaches our ideal in a green-manure crop. It is adapted to the whole Cornbelt; is inexpensive [*Turn to page 121*

35 bushels per acre at right—67 in background ◆ **(left foreground: leaf and ear from back plot) is the 12-year average of these test-plot fields. Sweet clover, seeded in oats and plowed under, made the difference. Do this! It can be worth 15 to 35 more bushels of corn per acre to you.**

This cheery and colorful living room is in the Nelsons' remodeled home. The stairway and area just in front of it are part of the old home; the Nelsons built on rest of the room (floor plan, page 98). Furniture consists of old family pieces Mrs. Nelson refinished and reupholstered

Champions at good living

By Margaret Speers

Nelsons still practice wonderful tradition of taking afternoon lunch to field. Julie delivers it to Dad (left) and the hired man

Conveniences like "dressing bar" make Nelson home one for comfortable, gracious living. Here Julie and Patty Rappana primp before a party

Family dining room is Traditional; a bright, lovely place to entertain—of which Nelsons do a great deal. Mrs. Nelson planned, executed all of decorating ↓

Where the grass is like a vast sea and the sky an endless blue, this South Dakota family made a deserted home and neglected acres live again

"Of all the things a guy can build, the best is a good farm from run-down acres." That's Wayne Nelson talking. He's worth listening to, for he's such a builder. And until five years ago, he wasn't even a farmer.

Twenty truckloads of junk; an abandoned, sagging old house (see page 98); barns folding over their foundations; a collapsed windmill; fences relegated to scrap piles; and land hip-high in weeds aren't exactly inspiring. But for a father and son determined to build a good farm, they are a challenge. They are what Wayne faced when he decided to go farming.

Wayne Nelson was born on the South Dakota farm around which this story developed, but he has no recollection of those days. His mother died when he was 2, and shortly thereafter his father, Luther Nelson, sold the "home place."

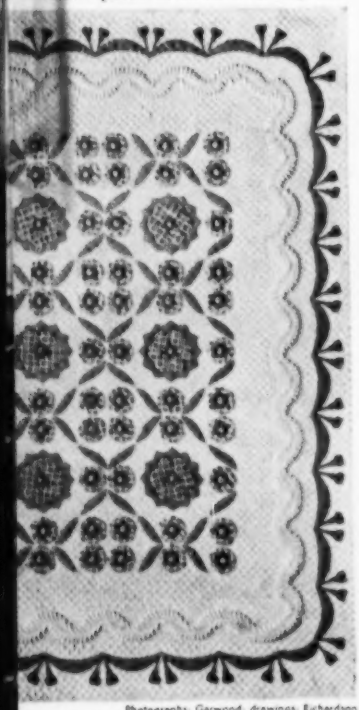
More on page 96

Photographs: Photography, Inc.

A lovely place to spend an evening! Girl friends love to visit Julie because "everything's happy-looking." That's Patty Rappana in the guest room, Julie in doorway of her own adjoining room

Quilt above is called Strawberry Royal. Its main pattern may be repeated in any one of many places, as shown in the room at the left

Barbara Rose quilt has many pattern details that make a handsome bedroom when repeated on cornices, chairs, pillows



Photographs: Garwood; drawings: Richardson

Start with a QUILT . . .

. . . and repeat its design in one or more places in your bedroom to give it all the color, warmth, and beauty of a priceless heirloom

A handmade quilt is a treasure forever. And quilting is a hobby that will bring hours of pleasure and the thrill of accomplishment. It's small wonder that there's an exciting revival of quilting today.

In Grandmother's day a quilt meant hours of fun at quilting parties, laughter, and friendly conversation. Then quilts were made for warmth even more than beauty—with little idea of their ever becoming family keepsakes.

Yet, today some of the old quilts of Grandmother's day are priceless heirlooms around which whole rooms may be decorated. Shown here are Strawberry Royal and Barbara Rose, two prizewinning originals, with ideas for repeating their designs decoratively throughout a bedroom. Designs from any handsome quilt you already own may be used similarly. The rooms sketched here were purposely filled with many decorating ideas. But unless an actual room is very large, one should guard against using too many repeats in a single room.

The Strawberry Royal is from the collection of Mrs. Florence Peto of New Jersey. It is Traditional, yet simple enough to go with most Modern furniture. The geometric design of Barbara Rose was originated by Mrs. Bertha Stenge of Illinois. It, too, lends itself smartly to today's room settings.

Full instructions for making Strawberry Royal and Barbara Rose quilts are available from *Successful Farming*. See offer below.

More ideas for repeating a quilt pattern in decorating—add the main design to door panels, and other details to a painted dresser front

Order quilt designs by name (*Strawberry Royal* and *Barbara Rose*) from *Successful Farming*, 2502 Meredith Building, Des Moines 3, Iowa. The designs are 6 cents each to cover mailing costs.

Stencil or paint your favorite quilt pattern on a small wall alcove, or applique the design on bolsters and pillows, and other accessories

Old chairs may be made handsome again by appliqueing an heirloom's pattern on quilted covers. Take care not to overrepeat quilt designs in any one room

Here's how to have

stand-by electrical power

By John Halpin and Elma Waltner

You don't need to break out in a cold sweat any longer when you wake up during a stormy night wondering if the electric power will be interrupted. Those mornings of reaching hopefully for the electric switch and then getting no results can be a thing of the past. Power failure need no longer cripple your farm activities, according to Prof. C. N. Turner, project leader of the Rural Electrification Council at Cornell University. He and some of his associates decided to do something about this problem after a high wind had raged for 24 hours last November, disrupting electrical service in much of rural New York State.

The wind had snapped power lines, toppled poles, and created general havoc throughout the area. All available hands on many farms were pressed into service, but still the milk trucks had to wait for the milk. Water pumps powered by electricity stopped and cows dropped in production.

Poultrymen and hatcherymen around the state also had many problems. Automatic watering systems were no good without electricity to power the pumps, feed hoists couldn't operate, electric fans for ventilating systems ceased to function, electric incubators and hatchers cooled down, and eggs had to be thrown away.

Professor Turner and the extension-district agricultural engineers working in the field recommended stand-by power plants. Some complete generating units already were in operation on New York State farms. Marshall Brothers, owners of Starland Farms at Ithaca, purchased a surplus army generator to use when the power failed. They were well satisfied and said the cost was repaid during the first power failure after installation.

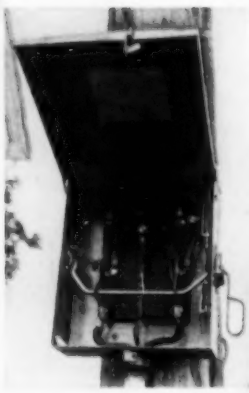
Babcock Poultry Farm, Inc., at Ithaca, owned by Monroe Babcock, also had a power plant of its own for use in case of a power shutoff. This was a large diesel plant that automatically supplied all of the electrical needs for a 225,000-egg hatchery and the other requirements on this large poultry farm. Last year nearly 2½ million chicks were hatched and the generator plant was always available as insurance against power failures.

These large generating plants were fine for specialized poultry and hatchery operations such as the Marshall and Babcock farms. But the remaining question was: What should the smaller farmer—especially the dairyman—do?

A generator driven by an ordinary farm tractor seemed to be the answer. The tractor has a definite advantage over a special engine for this purpose because it's usually available on most farms and is kept in year-round operating condition.

Lew Bell, purebred Holstein breeder at Interlaken, installed one of these tractor-driven generators for emergency use. He finds that by staggering his critical load of electrical needs, he can operate most of his essential appliances from the generator. Now, when the power fails, all he does is line up the tractor, put on the belt, and throw the double-throw switch on the meter pole. His 5-kw power plant can then meet most of his critical needs if he staggers the load.

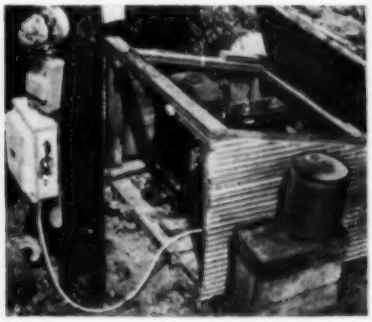
Determining the amount of power you will need to operate the critical items on your farm should be the first step in deciding upon the proper size of generator. Information has been received about many New York State farmers who have installed [*Turn to page 126*

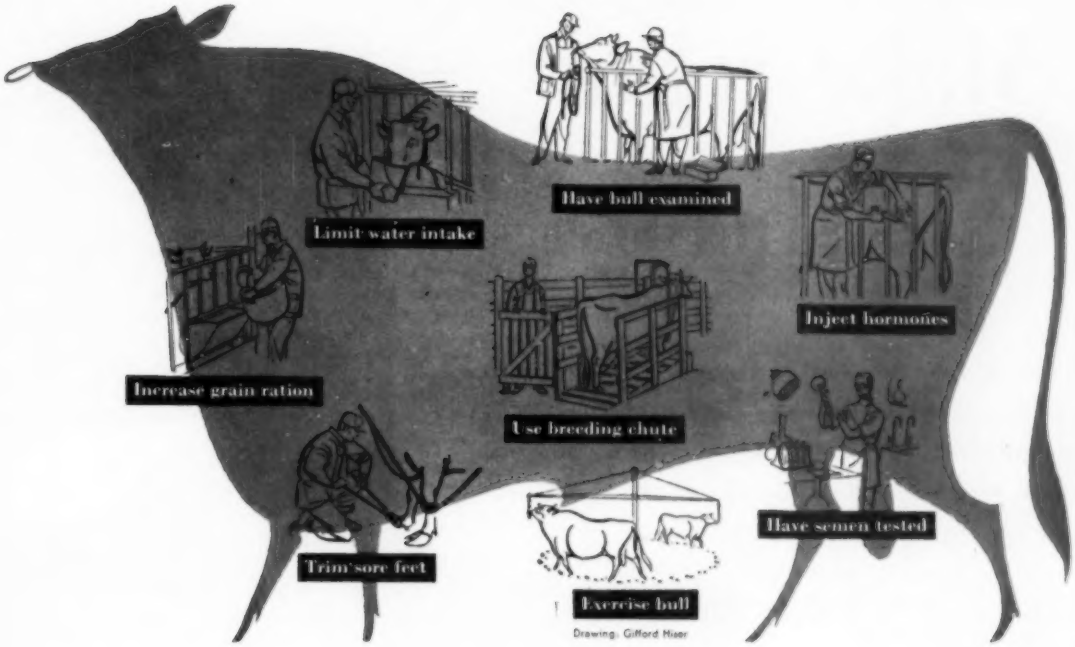


◆ **Double-throw switch,** in "down" position as shown, is supplied with power by the emergency generator. When switch is in "up" position, current is taken from regular power line

Stand-by generator on the H. L. Creal farm, Homer, New York, is in the feed alley in front of the cows. The farm tractor is driven into the barn and belted to the emergency generator

Small, complete power plant is another answer to the problem of regular power failure. Plant can be placed at the yard pole





Drawing: Gifford Hiser

Tips on bull trouble

Bulls can cause poor breeding results. Here are reasons why and what you can do about them

By George W. Trimberger
Cornell University

High breeding efficiency rests with *both* the bull and the cows in a herd. As the fertility of either goes down, the fertility of the other is of greater importance. If a bull of high fertility is mated with females of high fertility, an excellent conception rate results. On the other hand, low fertility in both the cow and the bull results in a poor breeding record. When one is low in fertility, and the other high, an average record usually results.

With a bull of exceptionally high fertility, breeding problems in a herd often disappear entirely. If you have trouble with the females, it's necessary to put more and more emphasis on the fertility level of the herd bull. This article points out some of the reasons for low-fertility bulls and what you can do about them.

Occasionally, a dairyman claims that the bulls used in artificial breeding are not of high enough fertility to settle his cows. It would be more accurate for him to say that his cows are not of high enough fertility for artificial breeding. Most bulls in artificial breeding are of average or better fertility. The conception rate of each bull is carefully checked and those with less than average fertility are weeded out. If you have a few cows that are hard to settle, ask the artificial-breeding technician for the bull with the highest fertility.

The best test of fertility in a bull is his breeding record with the cows to which he is mated. However, there are many supplementary tests veterinarians can make. These are advisable if breeding results are not satisfactory. They include the following observation of the semen: (1) Normal concentration or sufficient numbers of sperm cells in the semen; (2) proper motility of cells; (3) high percentage of normal sperm cells; and (4) storage capacity.

Almost every long-time dairyman has had experience with bulls that lacked sexual interest or drive. This is especially true when using old, proved sires.

Sometimes a bull will spend an hour or more with a cow before he successfully serves her. In some cases interest is so low in bulls without sexual drive that they won't even attempt to breed the cow. *It is not advisable to leave a cow with the bull if he is a slow breeder.* Under those conditions, it's difficult to know whether or not the cow actually was bred. This leads to having cows out of production for long periods.

In young sires, lack of sexual interest often is due to underfeeding or using feed of poor quality. In older bulls it also may be caused by underfeeding but more often it is due to overfeeding and poor manage- [*Turn to page 78*

Make room for sheep

You may be surprised at the way sheep are using soil-conserving crops and cutting labor requirements—and all at a nice profit for the man who knows how to feed, handle them

By R. M. McWilliams and Francis A. Kutish
Iowa State College

What will farmers do with today's increased production of roughage? That's a problem on many farms.

It's been proved that—up to a point—more legumes in the rotation pay by resulting in a greater total grain output, even if the legumes are just plowed under as green manure. But to get the *most* money out of conservation-type farming, you need to go one step further and process those legumes through more livestock.

Many Midwest farmers are considering sheep as the answer to this problem. A native-sheep flock can make good use of roughage with little grain. And the long-time price outlook is relatively good, compared with that for beef and dairy cattle. Farmers who like sheep and are willing to learn how to handle them will find the "woollies" a profitable enterprise.

Sheep numbers are near an all-time low. After hitting a peak of 56.2 million head on January 1,

Photographs: United States Department of Agriculture Bureau of Animal Industry, Stanley

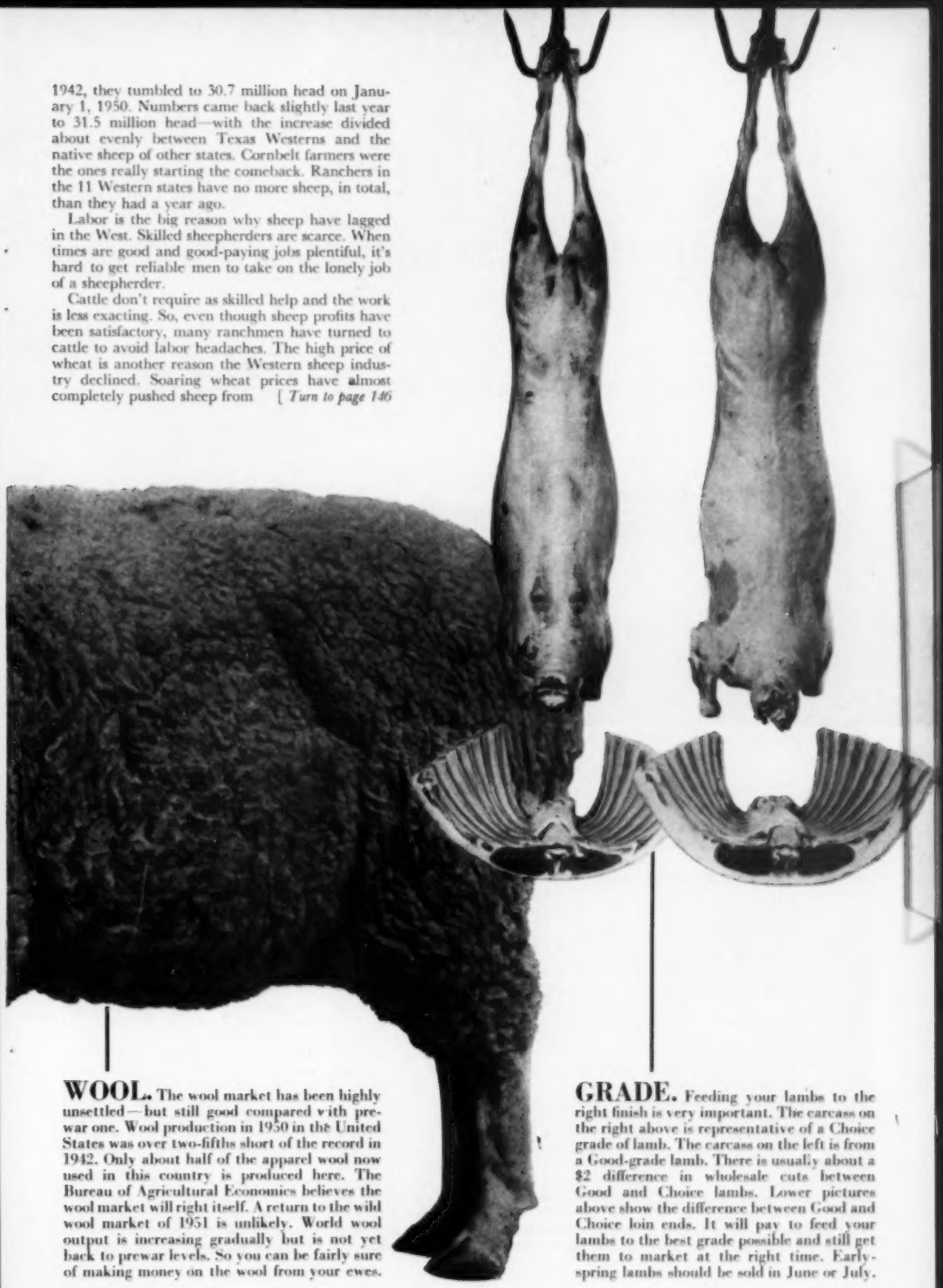
Here's where the money is

LAMBS. You can either buy ewes and raise your own lambs or skip the investment in ewes and buy feeders. Lamb feeding is more risky than cattle feeding—chances for death loss are greater and you have to be more careful in feeding. But experienced feeders usually can keep the death rate down around 3 to 5 percent. If you buy ewes and raise your own lambs, use a good-quality, purebred, mutton-type ram. Wool-type bucks won't yield lambs with quality carcasses. Western ewes should average a lamb per ewe—native ewes up to a lamb and a half. Make sure ewes aren't too old to produce well.

1942, they tumbled to 30.7 million head on January 1, 1950. Numbers came back slightly last year to 31.5 million head—with the increase divided about evenly between Texas Westerns and the native sheep of other states. Cornbelt farmers were the ones really starting the comeback. Ranchers in the 11 Western states have no more sheep, in total, than they had a year ago.

Labor is the big reason why sheep have lagged in the West. Skilled sheepherders are scarce. When times are good and good-paying jobs plentiful, it's hard to get reliable men to take on the lonely job of a sheepherder.

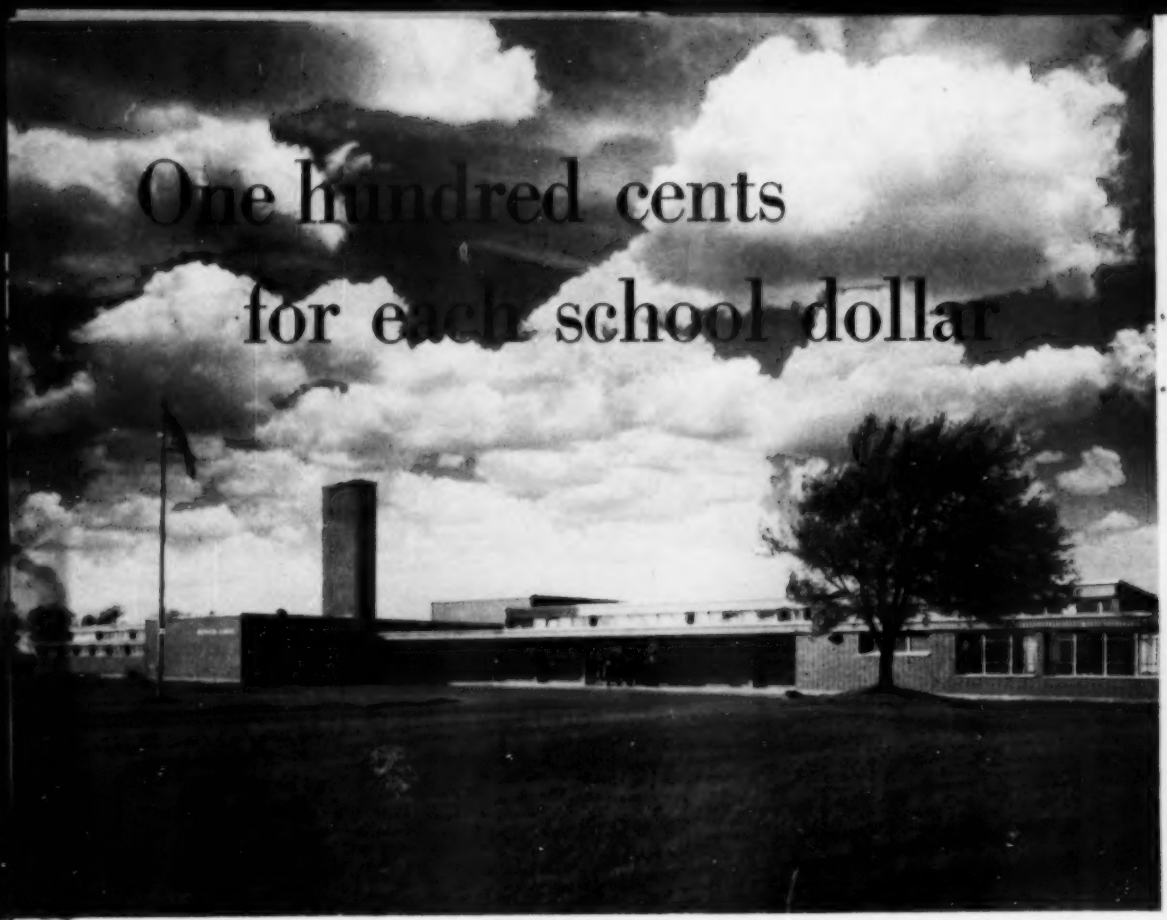
Cattle don't require as skilled help and the work is less exacting. So, even though sheep profits have been satisfactory, many ranchmen have turned to cattle to avoid labor headaches. The high price of wheat is another reason the Western sheep industry declined. Soaring wheat prices have almost completely pushed sheep from [*Turn to page 146*



WOOL. The wool market has been highly unsettled—but still good compared with prewar one. Wool production in 1950 in the United States was over two-fifths short of the record in 1942. Only about half of the apparel wool now used in this country is produced here. The Bureau of Agricultural Economics believes the wool market will right itself. A return to the wild wool market of 1951 is unlikely. World wool output is increasing gradually but is not yet back to prewar levels. So you can be fairly sure of making money on the wool from your ewes.

GRADE. Feeding your lambs to the right finish is very important. The carcass on the right above is representative of a Choice grade of lamb. The carcass on the left is from a Good-grade lamb. There is usually about a $2 difference in wholesale cuts between Good and Choice lambs. Lower pictures above show the difference between Good and Choice loin ends. It will pay to feed your lambs to the best grade possible and still get them to market at the right time. Early-spring lambs should be sold in June or July.

One hundred cents for each school dollar



Westwood Grade School near Woodstock, Illinois, was built because parents cared enough to struggle for better education for children

One sunny afternoon in early September, 1950, Robbie Young leaped off the school bus and tore into the kitchen.

"Mom," he yelled, "the desks are new, and you ought to see the pretty color in all the rooms. There were millions of kids! The bathrooms are right next to our rooms, and when we have lunch they pull tables out of the wall in the gym. You oughta see the wonderful swings and slides and stuff to play on at recess!"

Ten-year-old Robbie was bubbling over with the excitement of his first day in the new Westwood school. And no wonder. The year before, he had lugged his books down the road to a small country school. The gloomy building, with its potbellied stove and creaking outside pump, was a century-old landmark. The weather-beaten boards didn't quite hang together any more, and when the wind blew, the children stayed home. Lighting and ventilation were poor, and the teacher was too busy to keep the room clean—especially in muddy weather.

It was a typical picture of many of the 24 grade schools scattered over 110 square miles around Woodstock, Illinois. This is dairy country; the soil in northeast Illinois is rich and productive. Yet the children of the some 3,000 farm residents recited their lessons in these shabby buildings.

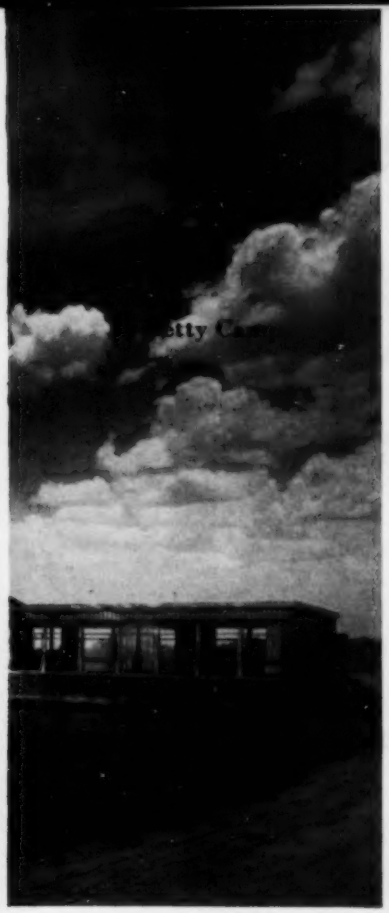
In 1944, Robbie's parents and other parents—like the Earl Hugheses, the Jim Fyfes, the Roland Leisches, the Nels Dahlgrens, the George Smiths—who farm near Woodstock, began meeting in homes and schoolhouses to talk over their school problems.

"Times are different since we went to school," Earl Hughes pointed out. "We've reorganized our ways of delivering dairy products, we've adopted the newest ways of caring for our land, yet we're still using the same old teaching methods. How can we expect a teacher to shape good minds when she teaches eight grades and has little or nothing to work with? How can we expect a good teacher to *stay?*"

These parents didn't know much about building a new school, but they knew it had to be done. The job ahead wouldn't be easy, and they couldn't do it alone. To get the best possible school for their money would take months of research, days of careful planning, help from educational administrators and building experts.

But they were determined. And from such modest meetings as these grew Westwood and Greenwood, two of the most modern centrally located grade schools in rural America. Even more important, with these schools came well-trained teachers who know how to bring out each child's abilities.

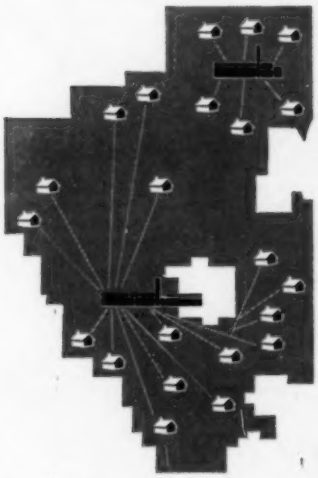
How these farmers did it won't give you all the answers. The needs and geography of each community are different. Each faces different problems in providing schools [*Turn to page 152*



Photographs: Hedrich-Blessing, courtesy of Burnett and Logan
School architects: Perkins and Will

Light, cheery colors, enticing books, and a homelike atmosphere attract children to the library. The glass wall and indirect lighting give the room maximum natural light

Kindergarten is equipped with sinks, running water, its own toilet facilities. Furniture fits small pupils. There's a play area in back and 117 wooded acres for nature study



Centrally located in new school district are Westwood (lower left) and Greenwood. Twenty-four small school districts pooled resources and formed one well-organized unit to make the new buildings economically possible

School busses are boarded from a protected loading platform. Most of the children are not on the busses more than 20 minutes, and special attention is given to the 6-year-olds

Handsome casseroles

American stoneware

You can buy them today in a wide variety of styles and materials—so handsome they can go straight from stove to table, so useful you won't want to be without them

American china

American glass in chrome holder

Italian pottery

Swedish iron

American pottery

By Susan Menne

This is the happy age of the wedding of beauty and utility. Gone are the days when utility skulked in a dark kitchen and beauty came forth only for Sunday dinner in the dining room. Today's wise homemaker has learned that the two walk hand in hand. Nowhere is this more evident than in the variety of useful and attractive casseroles that make the daily trek from stove to table.

Basic equipment for anybody's table setting is one or more of these ovenproof dishes. The modern casserole ranges in material from rough stoneware to crystal-clear glass. It is designed both to withstand the most intense oven heat and to grace the table at your most important party dinner.

In almost every make of casserole, you'll find a size to suit your family's needs, ranging all the way from the handy "individuals" to the massive 2½- or 3-quart sizes.

At the top of the page is a 2½-quart, side-handled casserole of sand-colored stoneware. This type is generally available with a lovely glaze of dark green, light green, or brown on the inside, and with matching, junior-sized casseroles ideal for individual servings.

You might not think of china as a | *Turn to page 74*

Cooky-cutter toys

Entertain the tiny tots with handy toys that come straight from the kitchen

Give the smallest youngsters cooky cutters and a piece of paper. Show how to hold cutter by handle and trace around cutters to form pictures for coloring or cutting

The sewing-age child will like cooky-cutter figures. Help him trace cutter onto cardboard, cut it out, and punch holes along edge. Supply yarn and blunt needle

Give the older children modeling clay, an old rolling pin, and cooky cutters. Let them make "pretend" cookies, or with thick clay, cut animal figures for farm play

Let'em Enjoy this
Real Farm Breakfast

Satisfying, yes... yet so *light*, so *fluffy* they can eat all they want!

Set of 16... Famous Picture Card Recipes
FROM FAMOUS EATING PLACES
(from main dishes to unusual desserts)

ONLY 10¢ (In Coin)
and one Aunt Jemima Box or Sack Top, mailed to: Aunt Jemima, Box D, Chicago 77, Illinois.

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Aunt Jemimas

America's BEST-LOVED Pancakes, Buckwheats, Waffles

Get the big, economical farm-size packages!

NOW—coconut that STAYS FRESH longer than the cake does

Durkee's new Stayfresh Coconut stays moist—doesn't dry out!

You know how it's always been with coconut cake. The coconut gets dry and brittle the second day. And from then on your fine cake is strictly a "leftover."

It need never happen again. The new Durkee's *Stayfresh* Coconut stays moist and soft twice as long as coconut ever did before—in the package or on the cake.

No wonder women vote for Durkee's 3 to 1. It's the biggest advance in coconut in 50 years—and only Durkee's has it!

Guaranteed by Good Housekeeping

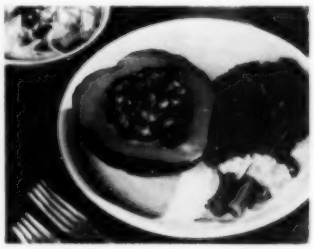
Tips for the cook

Ideas that add sparkle to meals and make food preparation easier

Photographs: Stanley

Here's a tip for varying chocolate cream pie: Add a 5-cent mint candy bar to the chocolate filling when you remove it from the heat. Stir well to dissolve bar. Cool the filling and pour into pie shell. Top with meringue and bake as usual.

Quick-broiled ham: Place pineapple rings cut in half on slices of ham, as in photograph above. Wrap the ham slice around the pineapple and fasten with toothpicks. Broil the ham roll-ups 3 inches from flame until juicy and brown, about 5 minutes on each side. Easy to serve.

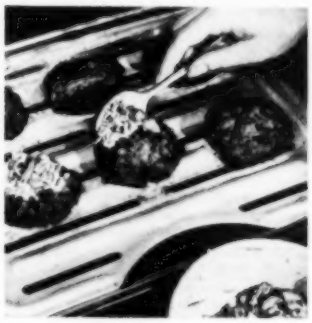


Ham and squash make a most delicious twosome when prepared together in this easily made, all-in-one dish. Cut squash in halves and remove seeds. Fill cavities with your favorite ham-loaf mixture, mounding it high. Set squash in pan con-

taining a little hot water; cover. Bake at 375° (moderate) 1 hour. Remove squash and brown under broiler.

Buttered broccoli and crisp Waldorf salad taste just right with this.

For onion-lovers. Use a regular yeast-roll recipe and shape rolls as desired. Just before baking, brush tops of rolls with melted butter and sprinkle with grated onion and celery seed. Bake as usual.

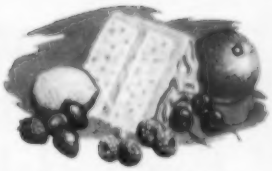


Top-hat hamburgers are a juicy, tasty treat. Broil 6 seasoned, ground-beef patties on both sides. Meanwhile, combine ½ cup grated, nippy cheese and your choice of ¼ cup chopped onion, ¼ cup chopped stuffed olives, or ¼ cup sweet-pickle relish. You may want to use two of the above or even all three. During last few minutes of broiling, spread relish mixture on top of the hamburgers and broil only until cheese melts and gets bubbly. Slip hamburgers into toasted buns.

An easy casserole idea: Prepare just enough creamed potatoes to serve your family. Pour into a greased casserole. Top with a thin layer of meat- or salmon-loaf mixture. Bake at 350° until brown, about 30 to 40 minutes. Bake last 15 minutes with chili sauce spread over meat. **END**

can YOU answer these questions?

✔ check your answers. See if they agree with Betty Crocker's



CAN A CAKE BE MADE IN SEVERAL FRUIT FLAVORS?

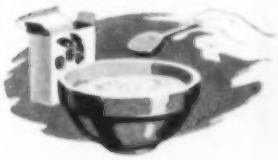
☐ yes ☐ no

Yes – and it's fantastically easy with Betty Crocker's directions below. All you do is add your favorite fruit-flavored Gelatin to Betty Crocker PartyCake Mix. Use any delicious flavor you prefer! Your cake will have a wonderful, tempting fruit flavor.

WHEN FROSTING, CAN YOU KEEP A CAKE FROM SLIDING?

☐ yes ☐ no

Yes, put a dab of frosting in center of plate to anchor bottom layer. Notice what a large, handsome cake you'll get from Betty Crocker PartyCake Mix! That's because there's a full pound and a quarter of fine ingredients in every package.



WHAT IS THE NEWEST, EASIEST WAY TO MAKE A COLORFUL CAKE?

☐ food coloring ☐ fruit Gelatin

Stir fruit-flavored Gelatin into Betty Crocker PartyCake Mix ingredients for a lovely colored cake. Fresh eggs are extremely important to this cake . . . and PartyCake Mix is one of the few cake mixes that calls for fresh eggs.

To make a luscious cake like this, you need only two eggs, water, fruit Gelatin, and this big 1¼ lb. package of Betty Crocker PartyCake Mix.

try all three wonderful

Betty Crocker's

COLORVISION CAKE

Follow easy directions for yellow two-egg cake printed on Betty Crocker PartyCake Mix package. Just before mixing, stir three tablespoons of your favorite fruit-flavored Gelatin Dessert, just as it comes from the package, into PartyCake ingredients. (Cake illustrated is Raspberry).

TO ICE: Mix, in top of double boiler:
all the remaining fruit Gelatin in package
¼ cup egg whites (2 small)
1 cup sugar
⅛ tsp. cream of tartar
⅓ cup water

Place over boiling water and beat with electric mixer on high speed, or rotary beater, until icing holds stiff peaks. Remove from over boiling water and beat about 1 min. longer. ©1951, General Mills, Inc.

Betty Crocker Cake Mixes

General Mills

Adds Flavor Magic To Leftovers!

The Greatest Taste On Earth–Heinz Ketchup!

Its Rich, Tempting Flavor Has Made This Spicy Sauce The World's Largest-Selling Ketchup!

WONDER WHY—year after year—Heinz Tomato Ketchup is unrivaled for flavor, color, appetite-arousing zest? *Heinz chefs have the things it takes*—"Aristocrat" tomatoes, fine vinegar, rare spices and **experience.** Try Heinz Ketchup on steaks or chops—or to give economy dishes that important **extra** lift! Use Heinz Ketchup to flavor gravies, too. You **know** it's good because it's **Heinz!**

HEINZ KETCHUP 57

● **For a steak sauce with a really unusual flair, try HEINZ 57-SAUCE! Carefully blended from 17 flavor ingredients, this richly spiced favorite does tasty things for fish, sea foods and leftover meats, too. Tried it lately?**

● **You can count on HEINZ OLD-FASHIONED MUSTARDS —mild, tangy Yellow and full-strength Brown—to glorify ham, cheese sandwiches and many other dishes!**

Latest "know-how" in foods

Your market basket of new products and new research

The last word in herb cookery: New liquid-form spices are now on the market in easy-to-handle, dropper-type bottles. Ten to 15 drops or ¼ teaspoon flavors a dish in quantity to serve 4. You can start with 5 drops and add more to suit the family's taste. These seasonings add flavor quickly, needn't be cooked to add a subtle flavor to foods. Available in new liquid form are celery, cinnamon, allspice, clove, nutmeg, anise, marjoram, mint, thyme, and garlic. Just about the easiest way possible to add a "lift" to your cooking.

If your family likes tuna: It's now being distributed in two brand-new ways —strained tuna for babies and a dietetic pack without oil or salt for persons on special diets. The baby food is packed in distilled water with very little oil and is made of light meat.

Here's the latest word about canned foods from the Consumer Information Service of the Can Manufacturers Institute: Now you may (with finger-tip pressure) release pancake or waffle batter directly from a can onto a hot skillet or waffle iron. This new, ready-prepared batter, made with buttermilk and whole eggs, is sealed under pressure in a steel-and-tin container fitted with a dispensing valve. The batter needs no mixing or additions and makes about 20 average pancakes. It must be kept refrigerated.

Not new but worth re-emphasizing: The University of Illinois home economists remind us:

- Don't store meat as it's wrapped by the butcher. It will keep better just wrapped lightly in waxed paper with ends open; store in the coldest part of your refrigerator.
- Slow-cook meat—it means a saving in servings. A 12-pound roast may shrink 4 pounds at 450°, just 2 pounds at 300°.
- Defrost frozen meat if you plan to coat it with crumbs. Otherwise the crumbs will not stick. And if you don't defrost a steak before you broil or fry it, the outside may be done before the center thaws.

Do you have a favorite housekeeping short cut? *Successful Farming* pays $5 for each suggestion published. Send your hints to: All Around the House, *Successful Farming*, Des Moines 3, Iowa.—Editors.

Sour-cream Raisin Pie

Makes a 9-inch pie

Combine **1½ cups cooked raisins**
1½ cups sour cream
1 cup sugar
1½ teaspoons cinnamon
3 beaten egg yolks
Pour into unbaked 9-inch pastry shell.
Bake at 400° for 35 minutes.
Beat . . . . . **3 egg whites** to soft peaks
Add . . . . . **6 tablespoons sugar** gradually, beating constantly
Spread over filling.
Brown at 400° for 8 to 10 minutes.

—*Mrs. Maurice Cassidy, Indiana*

Date-Nut Dessert

Serves 4

Combine **2½ tablespoons cornstarch**
¼ cup sugar
½ teaspoon salt
Add . . . . . **2 cups scalded milk,** gradually
Cook in double boiler until thickened.
Add small amount of hot milk mixture to **2 eggs,** slightly beaten; then stir eggs into remaining hot mixture.
Cook until thick, stirring constantly.
Remove from heat.
Add . . . . . **1 tablespoon butter** or **margarine**
1 teaspoon vanilla, and cool
Stir in . . . **¾ cup chopped dates**
⅓ cup chopped walnuts
Serve with **whipped cream.**

Pork-and-Prune Roll-ups

Serves 4

Combine **⅓ cup quick-cooking oats**
⅓ cup water
Blend in **1 teaspoon salt**
dash of pepper
¼ teaspoon nutmeg
¾ pound ground pork
2 teaspoons minced onion
Flatten meat mixture into 4 rectangles on waxed paper.
Place . . . . **3 tablespoons cooked prunes (¾ cup in all)** on each meat rectangle
Roll up and seal edges by moistening.
Brown meat rolls in **shortening.**
Place in a shallow baking dish.
Bake at 350° for 30 minutes.

Onions make the meal

If you're fond of onions, these good-tasting recipes are sure to add extra zest to your mealtime enjoyment

Ham-stuffed Onions

Serves 6

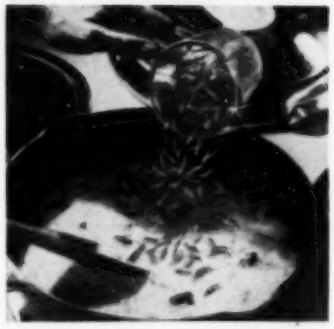
Peel . . . . **6 medium onions**
Wash and cut off tops.
Pierce centers with skewer to keep whole.
Cook until almost tender in **boiling, salted water**
Drain and remove centers.
Combine **onion centers, chopped**
½ cup chopped, cooked ham
¼ cup chopped green pepper
½ cup soft bread crumbs
1 tablespoon melted butter
salt and **pepper**
Fill onions with ham mixture.
Place in baking dish.
Pour . . . . . **1 cup light cream** around onions
Top with **½ cup buttered bread crumbs**
Bake at 375° for 30 minutes.

—*Mrs. Francis Dible, Kansas*

French-fried Onions

Serves 6 to 8

Slice . . . . . **6** to **8 big, mild onions** in slices ¼ inch thick
Combine **2 cups milk**
3 eggs
Beat well; pour into shallow pan.
Drop onion rings in milk-egg mixture.
Swish onions around to dampen each ring.
Take rings from pan; shake to drain.
Drop rings into pan filled with **2 cups flour**
Coat each ring.
Fill wire basket ¼ full with onions.
Fry in **hot fat** (450°) until golden brown.
Drain quickly and sprinkle with **salt.**
Serve piping hot.



Cream of Onion Soup
Serves 4

Dice . . . **2 slices bacon**
Fry until just crisp.
Add . . . . **1 cup sliced onion**
1/3 cup diced celery
Cook until golden.
Stir in . . . **2 tablespoons flour**
1/2 teaspoon salt
Add . . . . **3 cups milk,** gradually
Cook over low heat until smooth and thick, stirring frequently.
Add . . . . **3/4 cup grated American cheese**
Stir until melted.
Serve in hot bowls with **croutons.**

Fried Onions and Peppers
Serves 6

Fry together:
5 medium onions, sliced
4 green peppers, sliced
3 tablespoons butter or **margarine**
Add . . . . . **2 tablespoons water**
1/2 teaspoon salt
few grains of pepper
Cover and simmer until tender, 5 to 7 minutes.
—Mrs. Sylvia Neeley, Missouri

Creamed Onions de Luxe
Serves 4

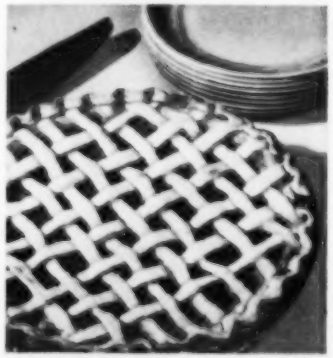
Cook . . . . **1 1/2 pounds onions (about 8) in boiling, salted water** until nearly tender (about 30 minutes)
Drain.
Add . . . . . **1 teaspoon salt**
dash of pepper
1 tablespoon butter or **margarine**
1 10 1/2- or 11-ounce can cream of chicken soup
dash of paprika
Heat thoroughly over low heat.
—Miss Bertha Rohrich, Nebraska

Dried-fruit favorites

Glorify your everyday meals with these healthful dishes, each bringing the flavor of sun-dried fruit to your table

Crisscross Apricot Pie
Makes a 9-inch pie

Combine **1 1/2 tablespoons quick-cooking tapioca**
1/3 cup sugar
1/4 teaspoon salt
1 tablespoon melted butter or **margarine**
2 cups dried, cooked apricots, drained
1/2 cup (9-ounce can) crushed pineapple, drained
1 cup apricot liquid
1/2 cup pineapple juice or **pineapple juice** and **water**
Turn into 9-inch pastry-lined piepan.
Top with lattice of pastry strips.
Bake at 400° for 45 minutes.
—Mrs. H. F. Schroeder, Minnesota



Maple-fig Cake
Makes a 10x5x3-inch loaf cake

Cover . . . **1 cup dried figs** with **boiling water;** let stand 5 minutes
Drain, clip stems, and cut fine.
Sift . . . . . **2 3/4 cups sifted flour**
1 teaspoon salt
1 tablespoon baking powder
Cream . . . **3/4 cup shortening** with **1 cup sugar**
Beat in . . . **2 well-beaten eggs**
Add sifted dry ingredients and **2/3 cup milk** alternately, beating well
Stir in . . . **1/2 teaspoon maple flavoring** and the figs
Pour in greased 10x5x3-inch loaf pan.
Bake at 350° for 60 to 70 minutes.
—Mrs. Kay Torgerson, North Dakota

MASTER OVEN, COMPANION OVEN—both equipped for baking, roasting, charcoal-type broiling. See the new "Constellation"! Other G-E Ranges as low as $209.95*. At your G-E retailer's. General Electric Company, Louisville 2, Ky.

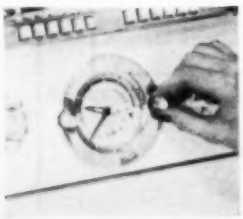
NOW! G-E TWO-OVEN Cooking at a new low price!

AUTOMATIC ELECTRIC

"SPEED COOKING" RANGES

PUSHBUTTONS!

At this new low price, too! Nothing could be simpler! You just press a button to cook. A separate button for each heat—from high, down to warm. You always get the *exact* temperature you want for best results!



AUTOMATIC OVEN TIMER!

No timing worries. No waiting around. Master Oven is automatically timed. Just pop your meal into the oven and set the "clock." Your oven goes ON and OFF automatically. Dinner's ready—right on time!

TWO Complete Ovens! Pushbutton Controls! Clean! Fast! Good Meals So Easy To Get!

It's new! The G-E "Constellation"! "Speed Cooking" plus two-oven convenience! And *all* this at a new low price!

Just count the advantages of General Electric 2-oven cooking!

- **You can bake foods at different temperatures—at the same time.**
- **You can turn out more cookies, pies, cakes on "baking day"—in less time.**
- **You can bake and broil simultaneously, with full oven capacity!**

With two ovens to cook for you, you'll wonder how you ever managed with only one! And remember—the new G-E "Constellation" gives you *two separate and complete ovens!* One mammoth-sized, the other medium-sized!

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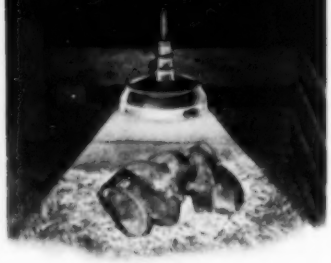
You can put your confidence in—

GENERAL ELECTRIC

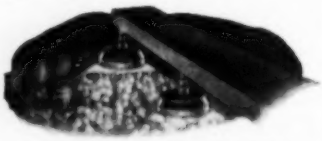
You'll Save More Pigs Per Litter



WITH WESTINGHOUSE INFRARED BROODER LAMPS

You'll save from 1 to 3 pigs per litter when Westinghouse Infrared lamps are used to heat the brooding area. Infrared lamps supply all the heat the young pigs need . . . keep them from being crushed or crippled by the sow. Litters are healthier, too, because Westinghouse Infrared lamps give diffused heat; the pigs have plenty of exercise room for fast, hardy growth.

All this brooding efficiency is yours at low cost—only $1.10 for the standard lamp or $2.95 for the hard glass model. And operating costs are only about 10¢ for 24 hours. Better see your Westinghouse dealer about putting this modern, pay-off method to work in time for this year's litters.



WESTINGHOUSE INFRARED HEAT PROTECTS CHICKS FROM CROWDING, SMOTHERING

There's plenty of warmth everywhere in the brooder area when Westinghouse lamps supply the heat. Chicks spread out, exercise and eat more . . . are in full view for checking. There's less mortality from crowding and smothering. And it takes only one Westinghouse heat lamp to brood 75-100 chicks.

Send for Free Booklet

This valuable Westinghouse booklet shows scores of ways heat lamps can reduce heating, baking and drying chores on your farm. You'll find helpful tips on dehydrating meats, fruits and vegetables, instructions for inexpensive, easy-to-build pig, lamb and chicken brooders, and many, many other time- and labor-saving applications. For your copy, just write Westinghouse Electric Corporation, Lamp Division, Bloomfield, N. J.

YOU CAN BE SURE...IF IT'S
Westinghouse

Dairy remodeling paid the Eklunds

By Bernal R. Camp

Two 4-H Club dairy projects are responsible for this dairy-barn remodeling. In fact, before his two sons started their 4-H Club projects, George Eklund, Mead, Nebraska, wasn't a dairyman at all. Now he's convinced dairying is a moneymaking business. Especially now that the old barn has been remodeled to save time and steps.

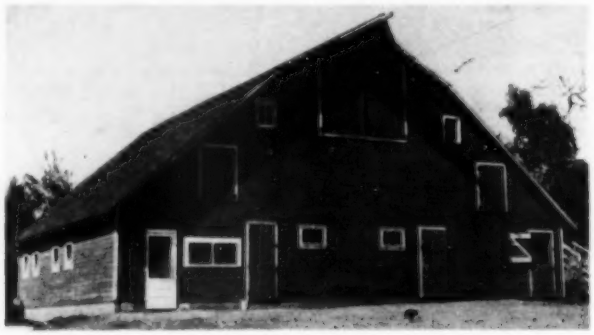
The barn is 40'x50', and was a typical horse-and-cattle barn before remodeling. The Eklunds decided they could save time and labor if they converted the cow barn to a milking parlor-cooling room type. They boarded off the dairy part in order to meet milk requirements in their community. No structural changes were made. Concrete floors were poured in the milking parlor and cooling room. Grain bins were built near the milking parlor.

The milking parlor and cooling room take up the entire west side of the barn. The 12'x12' cooling room was a grain bin before the Eklunds remodeled. They added two doors between the cooling room and the milking parlor.

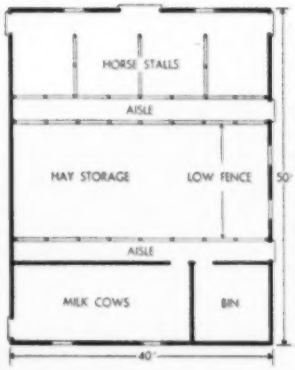
The milking parlor is 12'x28'. Grain and hay are stored at one end of it. Another door keeps dust from the feed out of the parlor. Individual feed troughs were made in the floor when the concrete was poured.

Eklund and his two sons did the remodeling work themselves. The east side of the barn still has the original horse stalls. Eklund plans to remove the stalls and build bull and calving pens.

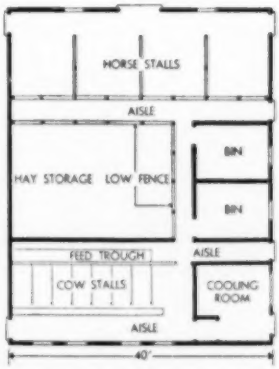
Eklund says the "production-line" system of milking speeds up chores and is much less work, which means bigger profits for him. He's glad his two sons chose to be dairy farmers.



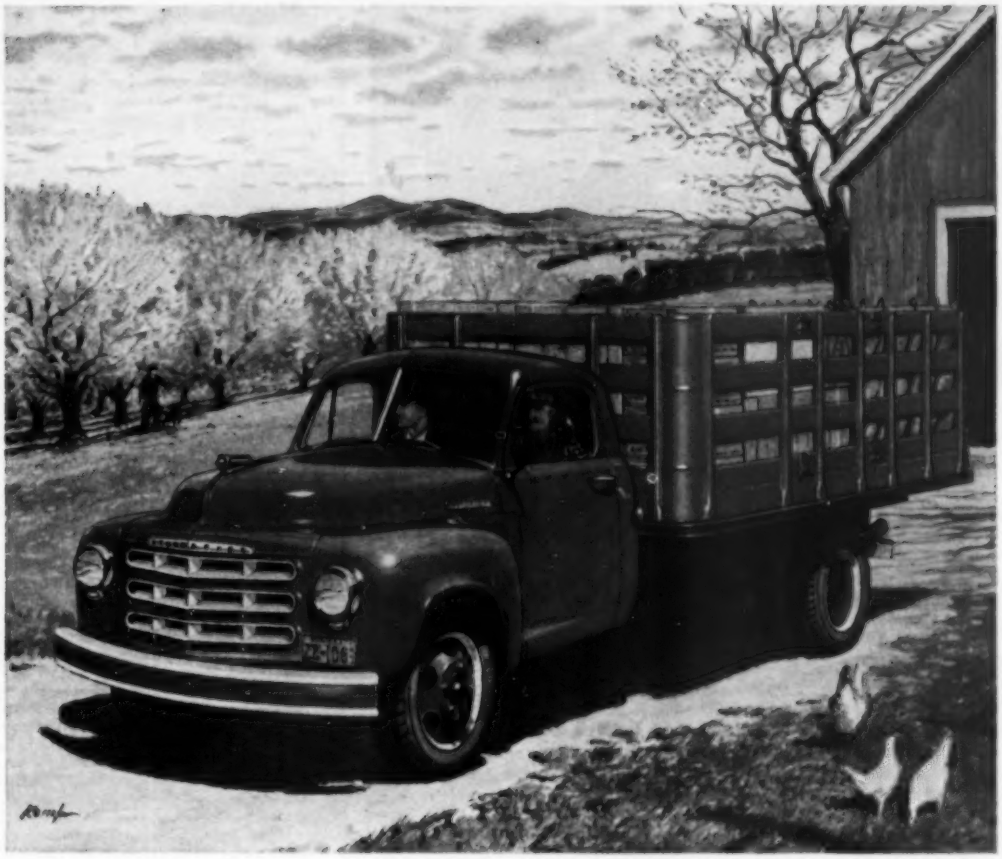
The outside appearance of the Eklund barn, above, wasn't changed except for addition of two windows and a door. Door, at left front, leads into cooling room



Before. The old barn was a typical horse, cow, and hay-storage building



After. Floor plan shows how barn was changed to meet dairy needs. **END**



1½-ton shown with 12-foot platform stake—also available on 2-ton chassis

BIG OR SMALL LOADS COST LESS TO HAUL IN A STUDEBAKER TRUCK

Examine a Studebaker truck at close range and you can see why its far-advanced design does a grand job of gas-saving for thousands of farmers. There's no excess bulk in a husky Studebaker's streamlined structure—no squandering of power.

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There's a size just right for every farmer's requirements in the comprehensive Studebaker truck line. Your range of choice runs from ½, ¾ and 1 ton pick-ups or stakes to rugged 1½ and 2 ton models.

Studebaker truck cabs excel in comfort and convenience for the driver. Low floor—enclosed safety steps. Wide doors with automatic "hold-open" stops. Roomy seat—Adjus-to-Air cushion. Floor ventilators.

"Lift-the-hood" accessibility to engine, ignition and instrument panel wiring makes a Studebaker truck easy to service at home or on the road. You can reach right in and make all adjustments conveniently.

Snug warmth in cold weather—is assured by Studebaker's Truck Climatizer—heats the cab fast—ventilates it—defrosts windshield, too—available at extra cost.

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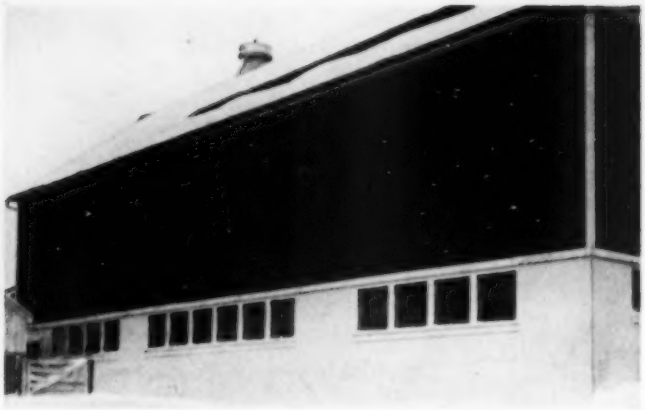

Windows in this remodeled Wisconsin barn bring in the winter sun for extra heat. Note that these windows are large panes, free from light-robbing and dirt-catching cross members.

This barn was remodeled for BETTER PRODUCTION

IT'S WARMER in winter because big windows flood the interior with heat-saving, health-building sunshine. A tremendous amount of sun heat enters through windows facing south to catch the slanting rays of the winter sun. A roof overhang or tree plantings can shade windows from the high summer sun.

IT'S *KEPT* WARMER because it is an insulated barn. The windows are *Thermopane** insulating glass—two panes with dry air hermetically sealed between them. Only half as much heat escapes through this insulated pane as with windows of single glass.

IT'S DRIER. Warmer air can hold more moisture—hence the ventilators are better able to carry off moisture. That provides a more healthful condition for livestock, and also protects the structure. *Thermopane* reduces condensation on windows—moisture which single glass takes out of the air and leaves *inside* the building.

Warmer—drier—these are conditions which livestock and poultry respond to with better health and more production of milk, meat and eggs. And, of course, the building is more comfortable to work in.

Thermopane is left in all year. It is easily installed—in fixed sash or windows that open. *Thermopane* is sold by glass and building supply distributors and dealers. Write for our book on "Improved Farm Building Daylighting".

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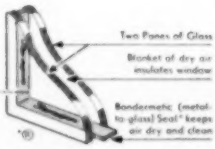

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Name _____ (Please print)

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Monthly hog check

[*From page 34*]

north side of the concrete slab. They are not fastened down, so they can be scooted off the slab and upturned for cleaning and disinfecting between farrowings.

Two weeks after farrowing, the sows and litters are moved to pasture. Both are hauled to the pasture in a large box built on runners. Doak has found that if you drive the pigs between pastures, they aren't likely to stay penned up. By hauling them, he has little trouble keeping them in the pasture.

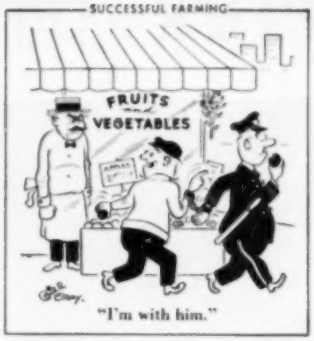
No runt pigs are kept. They are destroyed before the litter leaves the farrowing house. Doak has found that most runt pigs show up during the first 2 weeks after they are farrowed.

The only shelter, summer or winter, the hogs get from the time they leave the farrowing house until they are placed in the fattening pen is furnished by 8 double boxes (see page 34). During the summer, these boxes (2 to each pasture) are paired facing each other and bridged across with poles and old lumber to furnish shade. During the winter, 2 double boxes are placed together (1 facing east, the other south) near a dense woods. A self-feeder and a winter water fountain are placed conveniently in front of the 2 houses. Corncobs and a little straw are used for bedding the year round to help eliminate dust.

Doak uses a series of Ladino pastures for the pigs, each batch getting a fresh pasture. A creep feeder is placed in the pasture when the pigs are 3 weeks old. Water is piped to an automatic fountain in each pasture. The pigs are vaccinated at 6 weeks of age, weaned at 9 weeks, and wormed at 10 weeks.

When a group of pigs reaches 140 to 150 pounds (110 pounds in the winter), they are brought into the feeding barn where they are kept until they reach market weight. Here they are placed on a ration of ground corn, tankage, and soybean meal. Doak first prepares a premix of 100 pounds of tankage and 200 pounds of soybean meal. This is mixed with ground corn—1 part premix to 10 parts of corn. Hogs on dry lot also get a special supplement containing B vitamins and antibiotic supplements. Lights are kept on all night in the feeding barn. A mineral mix is kept before the hogs at all times.

Crushed corncobs from a local mill are used to bed the fattening hogs. The pens are cleaned once a week with a tractor



"I'm with him."

scoop. More than 100 hogs can be handled on the 2 feeding floors which intersect at the center. All four doors can be opened, giving double cross ventilation.

A 20'x70' concrete apron (see picture, page 35) on the lower side of the barn gives the hogs a sun porch. Another section of the barn is used for preparation and storage.

Now for the pay-off. When 20 to 30 hogs reach market weight, they are run over an old mill scale (see picture, page 35) built into the barn. Any hog which doesn't weigh enough to meet market needs is run back into the fattening pen. The top weight varies from 200 to 240 pounds. By keeping abreast with the market demands, Doak knows just the right weight to market his hogs at premium prices. Right now it's running about 240 pounds.

The scales are also used for keeping weight records throughout the growing and fattening period. All the pigs are weighed at weaning time. When they are brought into the fattening barn, 5 percent of each group is marked and weighed weekly to determine the rate of gain. Doak uses a three-way crossbreeding program, and this gives him a chance to find out which cross is giving the most efficient gains.

Doak doesn't consider any month of the year as an off-season market. "It's not what you get for the hogs," says Doak. "It's what you have in them in the way of costs." Doak keeps close records on each batch of hogs, and the spread on hogs going to market at a high price has been about the same as those selling at a lower price. He has found that the off-season hogs usually carry more costs.

As for disease, Doak is fighting it all the time, but does not consider his farm a problem farm. His sanitary measures are the same as those of any other good hog raiser. Doak considers nutrition the biggest factor in keeping hogs healthy. Here are his pointers on nutrition: (1) Don't change the ration on a group of pigs after they are started; (2) full-feed the sows right through farrowing; (3) even up the litters; (4) buy your feed and mineral from a local dealer whom you can trust; and (5) feed irradiated yeast the year round.

"In these days of high costs and low margins, no farmer can afford to invest in expensive equipment and then use it only a few months out of the year," reasons Doak. His system not only makes maximum use of time and equipment, but squeezes costs all along the line. **END**

WITH

ALUVAC

SAFEGUARD OLDSMOBILE'S "ROCKET" ENGINE

Gleaming precision parts of Oldsmobile's famous "Rocket" engine must be protected from grit, sludge and dirt. That's why Oldsmobile engineers chose AC Oil Filters with the famous AC *Aluvac* Element. AC *Aluvac* Elements . . .

. . . remove particles as small as 1/100,000 of an inch
. . . give you ten times the filtering area of ordinary elements
. . . do not destroy detergents in heavy-duty oil.

There's an AC *Aluvac* Element to fit most every make of filter. Follow the advice of engine builders—change the element at the mileage they recommend—and be sure it's an AC *Aluvac*.

BEST OIL FILTER ELEMENT MONEY CAN BUY . . . standard or optional factory equipment on Buick, Cadillac, Chevrolet and Oldsmobile

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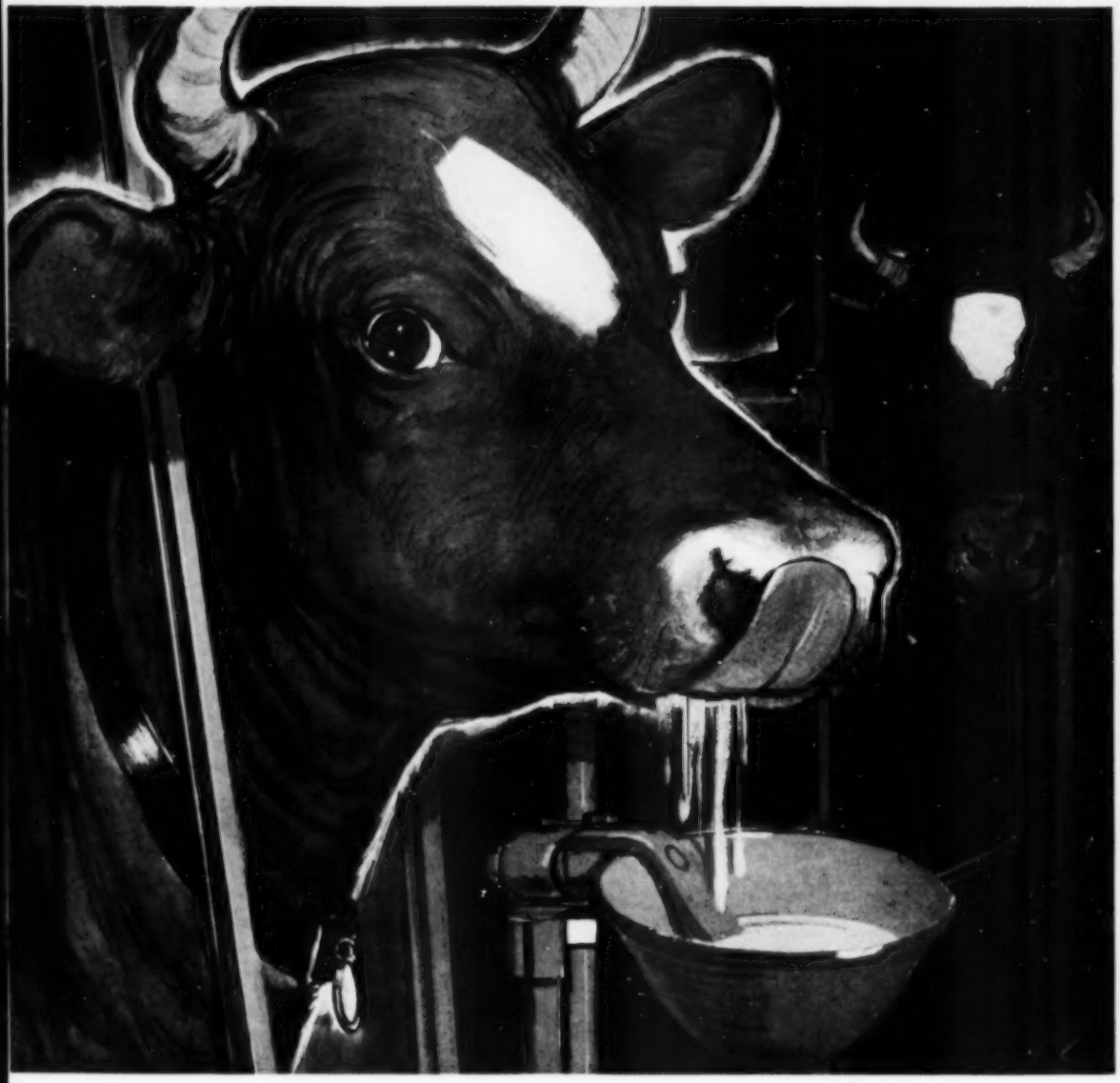
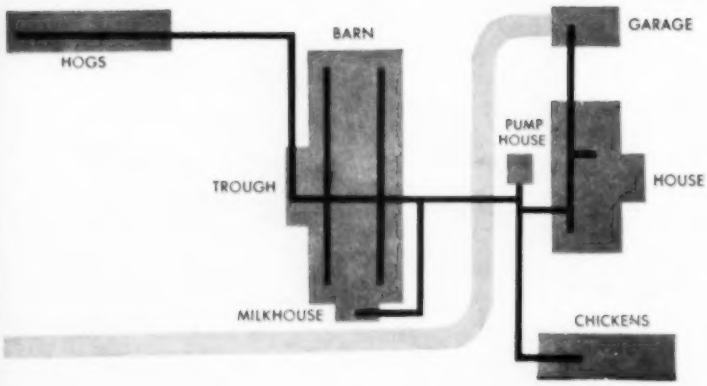
THEY'RE HAPPIER UP





NOW IT'S REALLY WATER, WATER EVERYWHERE

No more hours of bucket carrying! Home, barn, chicken house, hog house and garage —all have running water now. And running water means cheaper, faster gains on stock—more milk, more eggs and quicker, easier cleanup.

Their Crane Dealer helped them plan it, and installed the whole system. Crane quality in piping and fixtures will give them dependable service through the years ahead.

AT THE HOUSE, TOO!

Yes, the whole farm is a cleaner, easier, happier place to live and work since Crane Ideas came to visit, and Crane preferred plumbing came to stay!

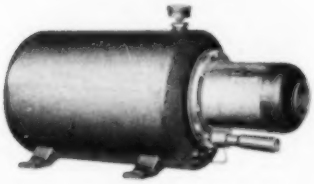
Just see what those modern Crane fixtures are doing to lighten and brighten their household tasks.

THEIR CRANE DEALER HELPED PLAN IT—AND INSTALLED THE WHOLE SYSTEM FOR THEM!

What a timesaving joy their brilliant new bathroom is for the whole family! And what a work-saving boon for Mom! There at the right we see the *Crane Criterion* tub, the *Crane Drexel* lavatory and matching closet. Available in 8 beautiful colors to match any decorating scheme.

THEY CONVERTED AN OLD PORCH into a combined workroom and laundry. This work-saving idea provides space for freezer and workbench, too. Note the large compartments in their new *Crane Laundrette*, above. Made of gleaming white *Duraclay* (vitreous glazed earthenware), it wipes clean with a damp cloth!

NEW KITCHEN LUXURY FOR MOM . . . Their new farm kitchen features the *Crane Kitchen Queen*—fit for a queen! Crane quality sinks come in all price ranges—cabinet or counter top—up to 72 inches long. *Crane-Line* steel cabinets create a beautiful, durable, easy-to-clean kitchen ensemble.



THE CRANE WATER SYSTEM THAT MADE IT ALL COME TRUE . . . started with a dependable *Crane-Line* pump. These fine pumps are available in all capacities, for deep or shallow wells.

Your Crane Dealer supplies the *complete* water system, from pump to fixtures. Benefit from his practical knowledge—and Crane ideas.

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Valves . . . Fittings . . . Pipe . . . Plumbing and Heating

COME TO **CRANE** FOR IDEAS

SEE YOUR CRANE DEALER

WORKING MOTHER SAYS

"when minutes count I count on Caloric"

"The busier a woman is, the more she appreciates a fast, automatic Caloric LP-Gas Range," says one Pennsylvania home maker. And thousands who live beyond city mains have proved that a Caloric saves minutes every meal, hours every day.

See the modern, work-saving features of Caloric LP-Gas Ranges . . . including TriSet Burners, Veri-Clean Broiler, Hold-Heat Oven with new "Cool End". They're today's best range values and recognized as America's Easiest Ranges to Keep Clean.

Be an absentee cook. . . .

WITH AUTOMATIC OVEN TIME CONTROL Put a meal in the oven, set the clock to turn oven on while you're out, and off when cooking time is up.

CALORIC TRISET BURNERS give any degree of heat instantly from fast boil to tiny pinpoint flame. Set positions measure exact "keep warm" heat as well as simmer flame. No pot-watching.

NEW "COOL END" OVEN. Air space built into side keeps oven end cooler, kitchen more comfortable. Acts as extra insulation.

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America's Easiest Ranges to Keep Clean

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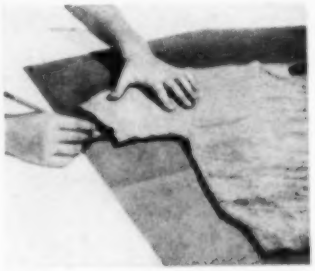
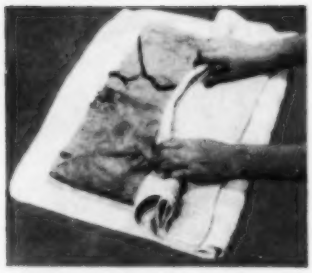
Sweaters are more loosely knit than materials are woven. They tend to stretch when the fiber is heavy with absorbed water, and need special washing care



1. Lay the unwashed sweater on a paper. Trace sweater outline (to be used in blocking). Run thread through neckband and cuffs, gathering slightly, to hold in shape

2. Prepare heavy suds in lukewarm water, using mild soap or synthetic detergent. Immerse sweater, cupping back and forth in hands. Give soiled spots extra attention

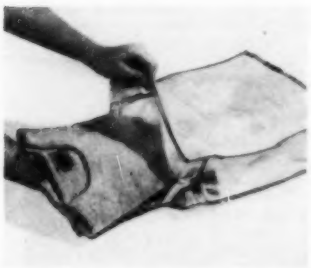
3. When sweater is clean, squeeze water out gently. Refill basin with lukewarm water, cup sweater until most of suds are out. Repeat rinsing process several times



4. Lay sweater on a bath towel, roll compactly, squeeze, and press the towel for about five minutes. Using a dry towel, repeat until sweater loses excess moisture

5. Fit sweater to paper outline made before washing and lay on soft, smooth surface away from direct heat. Do not remove the sweater to store until completely dry

6. To fold sweater for storing, place it front down on a flat surface, fold sleeve and shoulder back from each side to meet in back. Turn top of sweater over bottom



7. Put sweaters in plastic bags or in tissue-lined drawers. Store in dry place. For out-of-season storage use an airtight box or plastic bag, or wrap in tissue. **END**

DON'T COUNT ON FLIMSY DISHES...YOUR CHILD NEEDS

HONEST FOOD

NABISCO SHREDDED WHEAT

with MILK... America's great body-building breakfast! 100% whole wheat... bran and wheat germ included. Delicious... hearty... nutritious! The original Niagara Falls product.

NATIONAL BISCUIT COMPANY

Don't just say "Shredded Wheat"... say "NABISCO SHREDDED WHEAT"

2 POTENT SQUIBB SPECIALTIES for treating MASTITIS

PENDISTRIN*

A high potency combination of antibiotics—containing 100,000 units of penicillin plus 100 mg. of dihydrostreptomycin. Especially recommended for nearly all kinds of mastitis - particularly the difficult cases. Highly effective—ready for instant-use—stable—non-irritating—won't discolor milk. Ask your druggist for it.

PENICILLIN OINTMENT

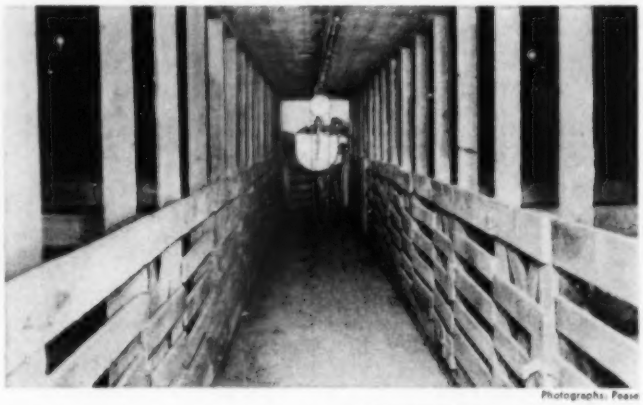
Millions of cases of mastitis (caused by Streptococcus agalactiae) have been successfully treated with Squibb Penicillin Ointment, over the past three years. It comes in the "instant-use" tube. Ask your druggist for it. Write for literature. E. R. Squibb & Sons, Veterinary and Animal Feeding Products Division, Dept. SF-2, 745 Fifth Avenue, New York 22, N. Y.

*Trade-mark, E. R. Squibb & Sons

SQUIBB
A NAME YOU CAN TRUST

Avoids mud, saves pigs with

laborsaving farrowing house



Photographs: Pease

Litter carrier is used to handle both feed and manure. The sloping concrete floor drains to the far end of the hog house

By R. E. Johnson and J. H. Metcalf

There's no tramping around in the mud and cold at farrowing time for Clarence and Lawrence Suder of Lucas County, Ohio. Instead, the Suders farrow their sows in a weather-protected, 18-sow farrowing house which includes all the new twists in time- and laborsaving ideas. After two farrowing seasons, the Suders are convinced their new farrowing house is doing a better job of saving pigs than their former 6-sow colony houses. As a result, they're weaning about 1 more pig per litter.

Here are eight of the top features of the Suders' 22'x60', $2,000 farrowing house; (1) an electric, 16-inch ventilating fan in the ceiling at the center of the house. This fan, aided by barn lamps, keeps the bed-

[*Turn to page 70*

Tilt-in windows give good ventilation the year round. The openings can be adjusted according to the outside weather

Weather-protected farrowing house takes operator and sows out of mud. The house has wooden frame, metal roof. Insulated walls, ceiling help keep temperature even

Don't *Short Change* Your Pigs..

and Rob Yourself!

You can throw away hog profits by feeding incomplete rations that short change your pigs on feed substances they need to make you money. Farm grains or corn, even with protein supplements, do not supply all the essential substances pigs need to stay healthy and grow fast. That's why it pays big to feed MURPHY'S CUT-COST CONCENTRATE FOR HOGS—a power-balanced protein-mineral-vitamin-antibiotic *concentrate* that turns farm feeds into more complete, better balanced rations.

JAMES H. MURPHY, *President*
MURPHY PRODUCTS CO.

WITH MURPHY'S CUT-COST CONCENTRATE FOR HOGS YOU ADD NEW FEED FINDINGS—SUCH AS VITAMIN B_{12} AND ANTIBIOTICS—TO YOUR HOG RATIONS EASILY, PROPERLY AND SAFELY, ALL FROM ONE BAG - *and at Low Cost!*

Big litters of strong pigs—result of good feeding says Harold L. Schneider.

Get Bigger Litters of Better Pigs

Proper feeding of sows and pigs can bring you better, more profitable results. Good hog men know that "pigs are made, then farrowed"—and the *time* to make them is *before* farrowing. Feed your sows now for bigger litters of better pigs that can make you real money. Harold L. Schneider of Rochester, Wisconsin, and thousands of other hog-raisers, have found a way to cut down on their cash outlay for feed, make good use of their home-grown grain and get top hog profits. Mr. Schneider says:

> "*I find that using* MURPHY'S CUT-COST CONCENTRATE FOR HOGS *and my home-grown grains has cut down my feed bills. My sows have large, strong, healthy litters. At the time this picture* [above] *was taken I had 207 baby pigs that were 4 weeks old from my 23 young sows. Last year I sold my hogs averaging 244 lbs. at 5 months and 15 days. They brought me top prices and made me good money.*"

Or you can ask Leonard J. Heck of Lyons, Wisconsin, whose sows averaged 12 pigs per litter—or Alfred A. Peter, Route 4, Quincy, Illinois, who raised the fine average of 9 pigs from his sows—or Dallas Issendorf of Lake City, Minnesota, who marketed his hogs at 5 months 15 days averaging 230 lbs.—or thousands of successful MURPHY feeders in the midwest.

Sidestep Troubles and Unnecessary Pig Losses

High death loss, scours, rickets, hairless litters, thumps, necro, unthrifty appearance, runtiness—these are often signs of feeding shortages. Because of these troubles, as many as 4 out of every 10 pigs farrowed never reach market. Such a 40% loss can wipe out your pork profits.

Why let this happen to *your* pigs? Don't short change them before they are farrowed on the protein, mineral, vitamin and antibiotic substances they need. Feed sows for good pigs, then keep the pigs putting on rapid, steady gains. You can do this when you use rations properly and easily made with MURPHY'S CUT-COST CONCENTRATE FOR HOGS.

New Feed Findings—All In One Bag

MURPHY'S CUT-COST CONCENTRATE FOR HOGS supplies extra amounts of the new feed substances, antibiotics and Vitamin B_{12}, so essential to early, rapid development. These substances also help cut down scours and other digestive setbacks.

Feed More Hogs With Your Grain

When grain alone is fed to hogs, it takes 10 to 12 bu. of corn and a long time to put on 100 lbs. of pork. But 100 lbs. of pork can be made with only 5 to 6 bu. of corn and as little as 25 lbs. of MURPHY'S CUT-COST CONCENTRATE FOR HOGS. Yes, hogs require much less feed when they get the extra protein, mineral and vitamin substances they need. You can raise more hogs on the same amount of corn and make more money for yourself.

Follow This Simple Feeding Plan For Bigger Pork Profits

Brood Sows. Hand-feed corn and oats twice a day. Self-feed MURPHY'S CUT-COST CONCENTRATE FOR HOGS at the rate of ½ lb. per sow per day.

For sows and pigs. Self-feed this sow and pig meal:

1,000 lbs. ground corn mixed with
700 lbs. ground oats
200 lbs. No. 1 alfalfa meal
300 lbs. MURPHY'S CUT-COST CONCENTRATE FOR HOGS

Growing and fattening hogs. Self-feed grain and self-feed MURPHY'S CUT-COST CONCENTRATE FOR HOGS, or if you prefer to mix, self-feed the following mixture:

1,800 lbs. ground grains (corn, oats, wheat, barley)
200 lbs. MURPHY'S CUT-COST CONCENTRATE FOR HOGS

In addition give all your hogs good pasture or good legume hay.

Let Your Murphy Dealer Help You

See your Murphy Feed Dealer about these better, lower-cost methods of feeding hogs. MURPHY'S CUT-COST CONCENTRATE is backed up by a positive, written money-back **GUARANTEE** of improved vigor, faster gains, lower feed costs. Thousands of hog feeders are getting better, more profitable results than ever before with MURPHY'S CUT-COST CONCENTRATE FOR HOGS—so why don't you try it too?

Your Murphy Dealer has a low-cost MURPHY CONCENTRATE for all your livestock and poultry.

- MURPHY'S CUT-COST CONCENTRATE FOR HOGS
- MURPHY'S CUT-COST CONCENTRATE FOR BEEF CATTLE
- MURPHY'S CUT-COST CONCENTRATE FOR DAIRY CATTLE
- MURPHY'S CALF CONCENTRATE
- MURPHY'S VIG-O-RAY CONCENTRATE FOR POULTRY
- MURPHY'S VIG-O-RAY CONCENTRATE FOR BROILERS
- MURPHY'S VIG-O-RAY CONCENTRATE FOR TURKEYS
- MURPHY'S MINERALS FOR ALL LIVESTOCK

These concentrates can help you beat high feed costs and boost your feeding profits.

MURPHY PRODUCTS CO., Burlington, Wisconsin

IT GOES HAND-IN-HAND WITH

Good Farm Management

THE MANY-PURPOSE JOHN DEERE-VAN BRUNT MODEL "CC" FIELD CULTIVATOR

Conservation-minded farmers all over the country know that the John Deere-Van Brunt Model "CC" Field Cultivator goes hand-in-hand with good farm management. They depend on the Model "CC" for carrying out the tillage practices recommended to boost present farm profits and to assure profitable farm operation for years to come.

Summer fallowing . . . terracing, strip cropping, and contour farming . . . stubble mulching . . . renewing grasslands . . . and renovating alfalfa stands—all are jobs that can be made easier and faster with a Model "CC." It has the rugged durability to stand up under day-after-day punishment in tough field conditions; the flexibility to do top-notch work on rough or stony ground or rolling land; the clearance for doing a good job in heavy trash; and the adjustments for quickly and easily adapting it to many different jobs.

Let your John Deere dealer show you how the John Deere-Van Brunt Model "CC" handles many jobs that mean better soil conservation, better farm management, better profits for you—both now and in the future.

JOHN DEERE
MOLINE · ILLINOIS

Farrowing house

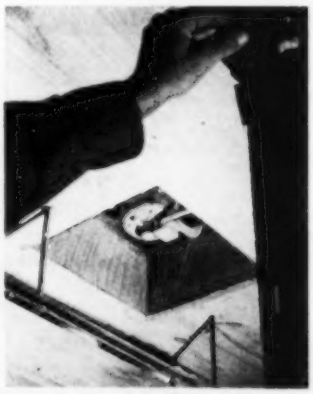
[*From page 68*]

ding dry and the temperature near the 40-degree mark during cold weather; (2) concrete floors and insulated walls and ceiling; (3) infrared brooding lamps (250 watts) over protected, triangular corners in the farrowing pens. A clothespin, taped to the end of a piece of strap iron, allows the Suders to adjust the height of the heat lamp; (4) double electric-outlet boxes in each pen; (5) fruit-jar covers over the light bulbs to eliminate the fire hazard from exploding bulbs; (6) a central alleyway equipped with a modern feed-and-manure carrier; (7) 12 large windows which provide ample light and ventilation the year round, and (8) large, 6½'x 8½', easy-to-clean pens.

Suders say the farrowing house is big enough for both present and future needs. Thinking of the future, Lawrence adds: "If we want to keep more sows, our farrowing house will allow it. All we have to do is to have some sows farrow at an earlier or later date than the others. Right now, we're farrowing litters in January, February, and August."

Lawrence also pointed out that floors in the pens slope toward an alleyway drain which carries away any moisture from inside the building. The house is a wooden, frame structure with a metal roof. The insulated walls help keep the house warm in winter and cool in summer.

Infrared heat lamps prevent the pigs from chilling. One corner of pen is boarded off with panel to keep sow away from lamps



Forced-air ventilating fan keeps moisture down, temperature even. In winter, temperature rarely drops below 40 degrees

Sure . . . lots of things. But when it comes to helping us put in rural telephone service, this rig is mighty hard to beat.

With its all-wheel drive we can haul equipment almost anywhere. We use its power take-off to dig pole holes, lift and place the poles, and roll up wire on its reels.

Using this fast two-man truck, Bell System construction men have planted thousands of new pole lines in rural areas. It's an example of Bell's constant search for easier ways to do things better, to give more and more people telephone service.

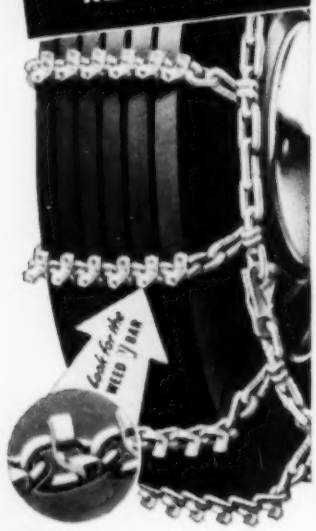
We are making full use of experience, skill and modern equipment as we add two rural telephones a minute, every workday in the week.

BELL TELEPHONE SYSTEM

SKIDDED—Load of hog profits wiped out in split-seconds by skidding on icy road hidden by snow. Use Weed Tire Chains and drive carefully.

IT'S EASY to put on chains with Weed Zip-On Tire Chain Appliers. Keep a pair handy.

ASK FOR WEED AMERICAN V BAR-REINFORCED TIRE CHAINS —They REALLY GRIP



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AMERICAN CHAIN & CABLE COMPANY, INC.
Bridgeport, Connecticut

Successful shortcuts

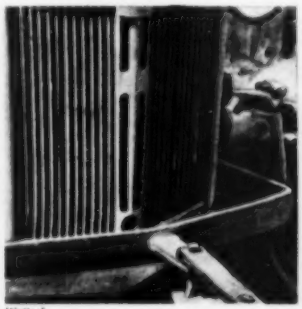
Build them yourself, save time and dollars

Photograph: Costello

Movable calf shelter on Loren Bruns' farm, Loveland, Colorado, has detachable pens for one, two, or three calves. The pen panels can be used to make one large pen if desired. The shelter is on skids and can be moved away from the dairy barns to isolate sick calves

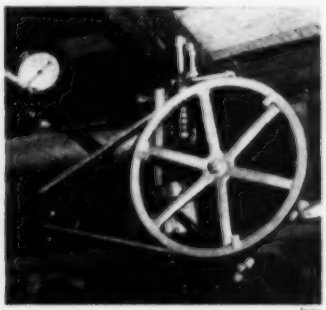
Weltach

Portable welding stand is handy for outside work as well as in the shop. Ray Creelman, Oakville, Iowa, made this stand out of an old brake drum and two pipes of different size so they would telescope. A hand setscrew in the side of the pipe makes height adjustable



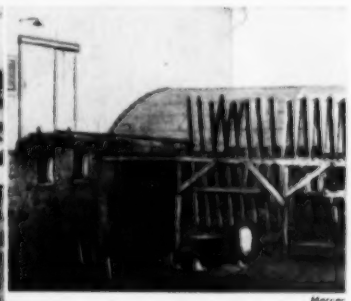
Weltach

Front hitch is used for pushing wagons instead of trying to back them into position. Front-mounted hitch was built by Lyle Bird, Mount Pleasant, Iowa, from pieces of old moldboard plow framing



Imig

Air-compressor unit was built by Morris Fleming, Iroquois County, Illinois. Fleming used an old refrigerator compressor, an automatic shutoff valve, and a small pressure tank. It is mounted on a wooden frame



Mercer

Hay chute was built out over the bunk by William Renk, Dane County, Wisconsin. The bales are dragged to edge of chute, twine is cut, and the open bale is dumped into the bunk. A cart can also be used on the chute for delivering more than one bale at a time. Sliding doors close the opening in barn

They insist on staying young!

International Trucks are engineered to stay young in spite of the toughest chores.

They are built that way because they are made by people who have an unusual background of practical farm experience. In addition to 45 years of manufacturing trucks, that experience includes more than 100 years of building heavy-duty equipment for American farmers. That's why every International Truck gives you the kind of truck performance you want and need.

If you are considering a new truck, why not stop in at your neighboring International Truck Dealer or Branch and find out *all* the advantages you get in Internationals?

Get these exclusive International advantages

- All-truck engines, designed exclusively for truck work, products of the world's largest exclusive truck engine plant.
- The "roomiest, most comfortable cab on the road"—the Comfo-Vision Cab designed *by* drivers *for* drivers.
- Super-steering system—more positive steering control with easier handling. 37' turning circle for greater maneuverability.
- 115 basic models with a wide variety of specialized bodies. Gross vehicle weight ratings from 4,200 to 90,000 pounds.
- The same traditional truck toughness that has kept Internationals first in heavy-duty truck sales for 19 straight years.
- Service by nation's largest exclusive truck service organization.

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INTERNATIONAL TRUCKS

Model L-122 with 8-foot pickup body and AD-A-RAK stake and sideboard attachment, 127-inch wheelbase.

How do you like your CORN BREAD?

Golden muffins? →

Quaker prize contest recipe? ←

Here is the delicious Quaker Prize Contest Recipe. Makes an 8-inch ring. *2 cups sifted enriched flour, ¾ cup Quaker Yellow Corn Meal, 3 teaspoons baking powder, 2 teaspoons salt, ⅓ cup shortening, 3 tablespoons chopped pimiento, 1 cup milk, ½ cup grated sharp cheese.*

1. Sift together dry ingredients. **2.** Cut in shortening until mixture resembles coarse crumbs. Add pimiento. **3.** Add milk, mixing lightly only until mixture is dampened. **4.** Turn out on lightly floured board and knead gently a few seconds. **5.** Roll out to ⅜-inch thickness; brush with melted butter. Cut with floured biscuit cutter (small size). **6.** Dip each biscuit into the grated cheese. In a well-greased 8-inch ring mold, stand the biscuits on end with flat sides of biscuits together. Sprinkle remaining cheese over the top. **7.** Bake in a moderately hot oven (400° F.) 20 to 25 minutes. **8.** Let stand in ring mold for 2 or 3 minutes. Invert and then turn right side up. Brush with melted butter.

Bake it with QUAKER!

FREE!

22 wonderful Corn Meal recipes in Mary Alden's cookbook →

Send for it today!

To The Quaker Oats Company, Dept. C-90
Merchandise Mart Plaza, Chicago 54, Illinois

Please rush me Mary Alden's cookbook, "Adventures in Corn Meal Cookery."

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Handsome casseroles

[*From page 52*]

material with the durable qualities necessary in a casserole. However, china is a hard ware that will stand much service, and is now being used most successfully in the manufacture of ovenproof and flameproof casseroles.

China casseroles come in a variety of weights and colors, and really can't be distinguished from pottery by the untrained eye. However, a majority of the china casseroles, such as the one on page 52, come in pastel colors, and they usually are not as bulky in design as are those of the pottery variety.

Not to be overlooked, if you're casserole hunting, is glass ovenware. It has the advantage of letting you see "what's cooking." It is fairly inexpensive, yet takes handsomely to table service when placed in a chrome rack.

The Italian bean pot, third from the top in the casserole grouping on page 52, is one of many pottery imports on today's market. In traditional brown and tan, this style of casserole varies in sizes that will take care of individual servings or the big church supper.

A newcomer to the casserole family, and ideal for "old-country" cooking, is the squarish Swedish casserole (see page 52). It is made of indestructible iron and is glazed with porcelain for that come-to-the table beauty. This is only one of a number of Swedish- and Danish-designed ovenwares now appearing in stores.

Modern lightweight casseroles, like the one at the bottom of page 52, are designed to mix with modern dinnerware. Yet the uncluttered lines of these cook-and-serve dishes allow them to blend nicely with all types of simple pottery and dinnerware.

The casseroles shown on page 52 are by no means the limit; the field is a wide and varied one that makes casserole shopping an exciting experience.

With casseroles on hand, you'll find they will play a significant role in your meal plans. For casserole dishes are frequently the one-dish-meal variety that need no attention once they're in the oven.

The casserole's dual purpose as cooking-and-serving dish makes it a possession worth protecting. Here are a few rules that you should observe in order to keep your casserole "brand-new" looking:

Use an asbestos mat beneath your casserole when cooking over a top-stove flame.

Don't put the dish on a flame or in the oven without food in it.

Avoid extreme changes in temperature. That is, don't put a cold casserole in a hot oven; don't put a hot casserole in a cold refrigerator.

Don't handle a hot casserole with a wet cloth or place it on a wet surface. **END**

Send us your recipes

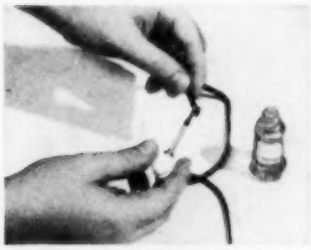
Do you have a recipe to submit for testing in our kitchen? *Successful Farming* pays $5 for each recipe published on the Successful Recipes pages. Please write on only one side of the paper. We cannot return unused recipes.—Editors

Nail polish

—at your service

Little girls' hair ribbons can be kept from raveling by painting over the diagonally cut ribbon end with colorless nail polish

Labels on packages will remain legible if coated with colorless polish. Use the same method to keep all medicine labels clear



Nail polish applied to the end of a shoestring that has lost its metal tip will make the string stiff and much easier to lace

Costume jewelry will retain its finish longer and not mark the skin if covered with a thin coat of colorless nail polish

Now! New Improved VEL* CLEANS MILKING EQUIPMENT

Cleaner... Faster... Easier!

HIGH QUALITY MILK DEMANDS CLEAN EQUIPMENT

Clean milking equipment lessens the danger of refusal at the milk-processing plant—gives you higher profits. New, improved Vel does an excellent cleaning job, no matter how hard the water. New Vel is not a soap. Vel is a soapless suds recommended by many leading agricultural schools and milking equipment manufacturers.

*VEL is the trade-mark of the Colgate-Palmolive-Peet Co.

BUY ECONOMY SIZE VEL FROM YOUR GROCERY DEALER

"HUSKY"
DITCHER TERRACER
AND ALL-PURPOSE GRADER

The "HUSKY" Does Fastest, Finest Work
Larger hoist wheels. Higher clearance. Rebuilds mile normal Farm Road or Ridge Terrace per day. Fine irrigation ditcher. All parts guaranteed against breakage first year, regardless.
Dealer inquiries invited. Write for full information. Mfd. by
NORTHFIELD IRON CO., P. O. Box 30-P, Northfield, Minn.

Home Planning Help There's a store near you offering **Successful Farming's** home planning service. See page 125 for more about this service.

New KENNEBEC POTATO

Also New CHEROKEE
scab and blight-resistant
Grow Kennebec and Cherokee U.S.D.A.'s most talked-of new potatoes! Kennebec is heaviest yielder ever grown in Maine! Breaking records from Florida to Canada. Best cooker of all, and free from blight! Cherokee resists scab and late blight.
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A fast shooting 1000-shot Air Rifle. Sell one order plus $2.00.

A fine Camera with Carrying Case. Sell only one order of American Seeds.

Big 19 piece outfit. Sell one order plus 75¢.

Pure aluminum. A fine gift for mother. Sell one order.

Ideal instrument for beginners. Complete instructions, nylon strings. Sell one order plus 75¢.

3-POWER BINOCULARS
Matched lenses. Special shoulder strap. Sell one order.

For Men and Boys. With Good Luck Cowboy Fob. Sell only one order of American Seeds.

Get Yours Now!

Many prizes shown here and lots of others in our Big Prize Book are GIVEN WITHOUT A CENT OF COST for selling one 45-Pack order of American Vegetable and Flower Seeds at 10¢ per large pack. Some of the bigger prizes require extra money as stated in our Big Prize Book.

Everybody wants American Seeds — they're fresh and ready to grow. You'll sell them quickly to your family, friends and neighbors and get your prize at once, or if you prefer, take your one-third cash commission on all seeds sold.

GET BUSY, send coupon today for Big Prize Book and Seeds.

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Please send the BIG PRIZE BOOK and 45 packs of Vegetable and Flower Seeds. I will resell them at 10¢ each, send you the money promptly, and get my prize.

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Address_____
City_____
State_____

The PLAY

Where Playfellows

Storybook arithmetic

The numbers in this problem are from boys' and girls' stories. See if you can reach the answer.

1. Multiply the number of blackbirds baked in a pie by the number of bags of wool in *Baa, Baa, Black Sheep.*
2. Multiply the number of mittens lost by the *Three Little Kittens* by *Old King Cole's* fiddlers.
3. Multiply the bowls of porridge *Goldilocks* did not eat by the number of stories Queen Scheherazade told to save her life in *The Arabian Nights.*
4. Multiply the years *Rip Van Winkle* slept, by the guests at the Mad Hatter's tea party in *Alice in Wonderland.*
5. Multiply the number of *Peter Rabbit's* brothers and sisters by the number of children who "went up the hill to fetch a pail of water."

Now add the answers to these five problems. What is your total? Check your answer at the bottom of the opposite Playhouse column.

Socko the Bronco. Let's go Western and make Socko the Bronco, a stick horse. You'll need an old mop or broom handle, a cotton sock, some red yarn, two buttons, carpet tacks, and stuffing cotton. Now then, if you've got everything together . . . let's make Socko.

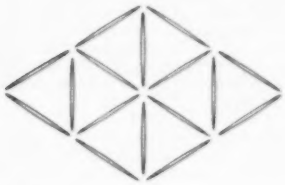
Start by sewing a tiny strip of red yarn across the toe of the sock for a mouth. Then stuff the sock with cotton and work the mop handle up the leg, to the heel of the sock. Stretch the leg down along the mop handle and tack it tightly. Now sew on the button eyes and tie each corner of the heel for ears. Sew red yarn on for the mane, and attach several strings of yarn for the bridle and reins.

Here is Socko the Bronco when he's all finished. He's fun to ride around the house or out of doors.

HOUSE

meet every month

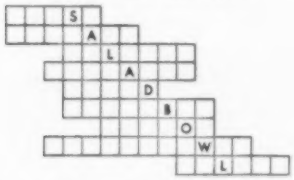
Toothpick teaser. Here's a puzzle that will be fun to spring on the grownups in your family. There are several solutions. You will find one answer at the bottom of



this page—but don't look down until you have tried it yourself.

Arrange 16 toothpicks in a pattern just like the picture. This arrangement makes 10 triangles. Now, see if you can remove four toothpicks and have only four triangles left when you're through.

Salad bowl. Each of the nine vegetables in this "salad bowl" begins with the letter *C*. If you can name them all, you really know your vegetables! Just try it.



1. My leaves are tiny, curly, crisp.
2. Mrs. Wiggs lived in a patch of us.
3. I taste like celery, look like lettuce, and my name is part of both.
4. I like the South. I look like cabbage, but my leaves are floppy.
5. My shiny leaves look like spinach.
6. With dill, I'm a pickle.
7. You like me for munching. Rabbits do too.
8. Around my firm, white head is a fringe of green leaves.
9. My crunchy stalks are what you eat.

Answers: 1. Cress; 2. Cabbage; 3. Celtuce; 4. Collards; 5. Chard; 6. Cucumber; 7. Carrot; 8. Cauliflower; 9. Celery.

Answers:
Storybook arithmetic:

24x	3	72
6x	3	18
2x1,001		2,002
20x	3	60
½3x	2	6
		2,158

Answer to the toothpick teaser shown above:

Just take away the four dotted toothpicks and you will have four triangles remaining.

The difference between this...

and this...

is often this...

Johnson & Johnson

Don't Let a Hard Winter Rob Your Spring Pig Crop!

Despite dry fall pastures, severe winter and farrowing conditions like this picture . . . 65 sows and gilts on the Semi-Solid Iowa demonstration farm last spring farrowed 10.06 pigs per litter; weaned 8.7 and averaged 8.5 pigs per litter marketed at 5½ months weighing 210 lbs.

SEMI-SOLID SOW EMULSION

Prepares Your Sows Now to Save Big Litters of Husky Pigs

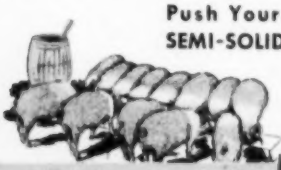
The most important time to feed a baby pig is when it's in its mother. If your sows and gilts have to forage for themselves through a cold, tough winter, farrowing time may be too late to save your spring pig crop.

Feed unborn pigs through their mothers now by giving your bred sows and gilts a ration containing Semi-Solid Sow Emulsion. Sow Emulsion helps provide for safe levels of nutrients that are often deficient in winter rations. Normal development of pigs requires the Vitamin D, "sunshine vitamin," Vitamin A, "greenstuffs vitamin," plus the B-complex vitamins, minerals and proteins. Semi-Solid Sow Emulsion provides these and many other nutritive advantages.

Just one extra pig saved next spring and fed to market can pay for all the Sow Emulsion a sow or gilt eats through her gestation and nursing periods. And Sow Emulsion can help you average 8 to 10 husky pigs that weigh three lbs. or more at birth . . . pigs that live, thrive and grow because their dams are conditioned to be good mothers and good milkers. To get big litters of husky pigs next spring, get Semi-Solid Sow Emulsion from your feed dealer NOW!

Push Your Fall Pigs With SEMI-SOLID PIG EMULSION

A warm drink of Semi-Solid Pig Emulsion every morning helps keep your fall pigs thrifty and growing even under winter feeding conditions. Save corn and protein supplement and speed hogs to market with Semi-Solid Pig Emulsion.



SEMI-SOLID C P CO **EMULSIONS**

CONSOLIDATED PRODUCTS COMPANY, DANVILLE, ILLINOIS

Division Offices: Des Moines, Ia., Princeton, N. J., Sacramento, Calif.
Makers of Semi-Solid Buttermilk, Semi-Solid Emulsions and Kaff-A

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Tips on bull trouble

[*From page 47*]

ment practices. If your bull lacks sexual drive, give your management practices a close check.

Sometimes young bulls are underfed because the dairyman doesn't realize that bulls require considerably more feed after reaching the age of 6 months than do heifer calves. Under such conditions, a bull will reach the age of a year and often not have much sexual desire.

Older bulls may lack sexual drive or be poor at serving if they have sore feet which need trimming. Some older bulls have an injury or are too fat or too thin. Some develop too much barrel due to receiving too much roughage. A few lack the proper hormone secretions in their systems.

Often older bulls can be cured by correcting the management procedure. Regular and sufficient exercise should be provided. A mechanical exerciser may be the answer. Many bulls will show decreased sexual interest if they are kept tied in a stall without exercise. However, others will maintain good breeding form and high fertility while they stand in a stall all season. Sometimes a breeding chute will prove beneficial for large bulls.

A bull with too large a barrel can be put on a feeding schedule to change this conformation.

Sometimes it is a good idea to replace part of the hay with grain. This furnishes the required nutrients in less bulk. Silage is a succulent feed and it may be an advantage to feed 25 to 30 pounds of it daily to slow-breeding bulls. However, it probably is advisable not to feed too-large quantities, although a few dairymen get away with it.

A management procedure that is very helpful for slow-serving bulls with too much barrel development is to withhold most of the water and roughage during the early part of the day until the cows are served. The grain can be fed in the morning and a limited amount of water given in a watering pail. This will keep the bull in condition.

If the sluggishness persists after feeding and management have been eliminated as the causes, it is possible to treat either with hormone therapy or the feeding of a specific drug. The hormone treatment consists of having the veterinarian inject the gonadotropic hormone. The drug, which the veterinarian can prescribe as a specific to correct this condition, is a daily dose of 5 grams of chlorabutanol. This sometimes is called chloretone or trichlorobutyl alcohol.

[*Turn to page 80*]

Do You Have the Harrow to Do Your Disking RIGHT

There's a world of difference in the work you can do with different disk harrows. It takes different sizes, spacing, loading and angling of disks to get the best combination of cutting, turning, packing, and covering or mixing action to suit your soil and your crop system. That's why Case builds many types of harrows, including the half-dozen shown here. It takes a lot of experience to build harrows strong and simple, yet fully and easily adjustable. Case harrows are backed by 115 years' experience in soil tillage.

New "R" Series harrows angle and straighten "on the go." They "follow" well, keep rear blades cutting between those ahead, even on sharp contour curves and hillsides.

Heavy-duty "JA" Series harrows have 20 or 22-inch disks spaced 7 or 9 inches to work in rank cover crops, heavy trash, and build good seed beds in stubborn soils.

Lift-type Tandem harrow mounts in a minute on Eagle Hitch of Case "VA" Series tractors, lifts clear at a touch of the hydraulic control for turns or transport.

Model "M" Brushland harrow has 24 or 26-inch notched disks that cut through brush and trash, tame wild land, renovate old pastures.

Heavy-duty "CO" Offset harrows have sealed-in ball bearings, 22 or 24-inch disks. Small sizes for orchards, big for fields.

Hydraulic control is standard or available on all Case Harrows shown here, also others such as wide-cut, mounted offset, wheel-type offset, and light grove offset. See your Case dealer now about the type of harrow to do your disking right.

New "N" Series harrows in 5, 6 and 7-foot sizes are light in weight, low in cost, fine for light tractors and average soils. Like the heavier "R" Series they "follow" accurately on curves.

CASE

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NAME _____

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YOU CAN GET REPRINTS OF THIS ADVERTISEMENT, AT NO COST, BY WRITING TO THIS MAGAZINE

How "big" should government be?

Lincoln was President at a time when the federal government had to take away from its citizens more rights and responsibilities than ever before.

But he didn't like it. He believed, with the writers of the Constitution and the Declaration, that our government should protect people's independence, not push people around.

"In all that the people can individually do as well for themselves, government ought not to interfere," Lincoln once said.

Lincoln never let Americans forget that. He kept reminding the nation that the government's vast wartime powers must be only temporary.

He made powerful enemies. For there are always those who want to see government run things — and run people — permanently.

We have them today. They think up all kinds of reasons why the federal government should take over this or that business, industry or service. They never say they want socialism. Maybe they don't even realize it. But that's actually what they propose.

Most Americans don't want socialism any more than you do. The job is to recognize it — and halt it — no matter what disguise it wears.

• • •

The people who plan and work for a socialistic U.S.A. know that permanent control of a few key industries and services will give government the power to take over just about everything. One of the key industries that they're trying to take over is electric light and power. That's why this warning is brought to you by America's *business*-managed, taxpaying Electric Light and Power Companies.*

*Notes on request from this magazine

"MEET CORLISS ARCHER" — CBS — Sundays, 9 P.M., Eastern Time • Look for "THE ELECTRIC THEATRE" on Television

Tips on bull trouble

[*From page 78*]

The bull can be given 5 grams of it daily in the feed or in capsule form for an indefinite period. However, 10 grams of the powder will soon cause him to stagger, because the drug is an alcohol. It is best to give the drug in capsule form as this eliminates any possibility of the bull's not taking his daily allowance.

Research during recent years has provided help for bulls with low fertility caused by an infection in the reproductive tract. Antibiotics or germ killers now are generally used in the semen for artificial insemination. At the start, sulfanilamide was the antibiotic added to the semen; then additional research showed the superiority of streptomycin and penicillin. These two antibiotics are used together because each one attacks a different group of harmful organisms, making them much more effective when used in combination.

> **Being young is a fault which improves daily.**
> —*Swedish proverb*

The addition of antibiotics to semen often will increase the rate of conception by 5 percent for bulls of relatively high fertility. When added to the semen from bulls of low fertility, they may increase the rate as much as 25 or 30 percent. Obviously, since low fertility can be due to many causes, not all bulls with low fertility will benefit from the use of antibiotics. However, information now available shows that about half the bulls in this category will give a very favorable response from the use of these agents.

When it is suspected that a reproductive infection is present in the herd, the females should not be switched or rotated from one bull to another for natural breeding. Such switching provides ideal conditions to spread the infection from one bull to another through the female. *The cow previously bred to an infected bull can act as a carrier to infect the next bull that is mated to her.* A study of breeding records usually will indicate how serious this condition is within a herd.

To eliminate trichomoniasis and contagious granular vaginitis from a herd, you can use a practical management procedure that has proved helpful in many cases. Usually these diseases are spread through the bull at the time of service after the bull has become infected by serving infected females. Ordinarily, a female is free from these diseases after a normal full-term calving even though previously exposed to an infected bull.

Whenever either of these diseases or others are suspected in a herd, a practical procedure is to get a clean bull. Use him either entirely by artificial breeding or only on virgin heifers and cows that are bred for the first time following a normal calving. Cows previously bred to the bull that apparently carries the infection should be bred to him until they conceive. If such a bull has too poor a breeding record, then use another bull that is on his way to the stockyards.

As a rule, it is recommended that the females previously exposed to an infected bull be given three free heat periods without service. After this time, they can

be switched to the bull used only on the females suspected of carrying an infection. Once a cow conceives and calves normally, she can be bred to the clean bull.

During the past 10 years I have seen many bulls that were of low fertility due to low motility (speed at which the cells move) of sperm cells. This condition can be corrected by hormone therapy or treatment by a veterinarian. The hormone treatment with 30 c.c. (1,500 units) of Gonadin demonstrates remarkably how dependent reproductive functions are on the hormones or glandular secretions in the body.

This treatment seldom fails to bring a response. The Gonadin hormone is injected into the gluteal muscle, located between the hips and pinbones in the pelvic region. Within about 10 days, a semen sample from the bull that has had sperm cells of low motility will invariably show a marked improvement. Usually the motility will be about normal. However, in about half the cases, the response is only temporary.

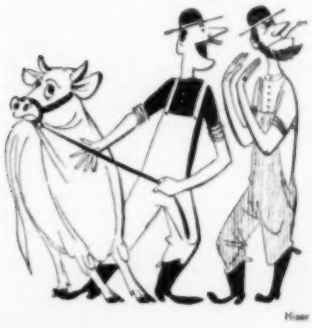
About half of the time, the herd sire is responsible for low rates of conception. As pointed out earlier, if the females are of low fertility, then it is much more important to have a sire of exceptionally high fertility. The importance of the herd sire in maintaining a high breeding efficiency in a herd cannot be overemphasized. But it should always be remembered that the females are equally important. The role of the female in dairy-cattle fertility will be considered in a later issue. **END**

Why you say it!

Though the horse was among the very first animals to be domesticated, only in recent times has it supplanted the ox as a work animal on the farm. Proverbially stupid and often quite vicious in temper, oxen were hard to train for obedience to commands. Usually an animal was full-grown, with heavy horns, before learning to obey such simple commands as "gee" and "haw."

Consequently, the ox offered for sale while his horns were still new, or "green," was viewed as undesirable. Canny farmers would shake their heads at the prospect of buying an untrained animal. "No greenhorn for me," was the customary remark.

As an apt expression for raw, inexperienced persons as well as animals, the term *greenhorn* won a permanent place in the language.—*Boyd G. Wood.*



—sure glad we've got steady, economical coal heat!"

As the temperature keeps on dropping, fuel bills get bigger and bigger . . . but with *bituminous* coal, my fuel bill this winter is much lower than it would be with other fuels.

I always knew that coal would save me money, but I've found out that coal gives me better heat, too. I've been using coal space heaters in my house for years, and I know nothing can match the steady, even warmth of a coal fire. Now I'm getting ready to install a central heating system—and I'm sticking to coal! No "all-on or all-off" fuels for me! A coal fire is always glowing, warming the house clear through. That means fewer "cold pockets" and probably fewer colds for my family, too!

The new furnace I'm getting will be completely automatic with controls and a stoker. Today you can't beat coal for convenience! And with my coal bin filled with a winter's supply, I'll never have to worry about snow-blocked roads stopping fuel deliveries.

Yes, I say *bituminous* coal is the best fuel—it gives steadier, more healthful heat at a lower cost.

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A Department of National Coal Association
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Are today's children learning the right values?

By Lee Knight

In these days when our values are questioned, and rightly so, we feel it is appropriate to share with you this heart-warming story of a country schoolteacher and country children as she knew *them. Our children today* need *a sense of values. It is more important than any degree of technical polish. We hope this teacher's views will not pass as mere recollections. But rather that they will remind us of the never-ending responsibility we have of building the right, high values with our children.—The Editors*

I was at my desk that morning when the first knot of students formed around the bulletin board to read the final results of their state examinations. As the tide of happy seniors moved toward the desk, I caught sight of Dotty staring white-faced at the lists. Like most teachers, I felt keenly the suffering of those who, for whatever reason, had not made the grade. For Dotty, my sympathy was even deeper. She had tried and continued to try—and her Latin had been doomed from the start. I could only hope that her English grade, higher than her yearly average, would give her some little measure of comfort. I saw her pause before the second list. Then she was gone.

Later, when the room had finally emptied, I looked up to find her standing beside my desk, her face anxious and pleading. My heart turned over. What could I say? Then she spoke, hesitantly, "I was wondering—you worked so hard on my Latin—my English mark was so much better. Do you think it makes up to you a little for my failing the Latin?"

It was only one of the many times when my pride in my pupils had a little touch of tears. For I taught in small union and consolidated schools in farming communities where teachers are able to know their pupils well. And my teaching years were full of lessons in the courage and innate goodness of youth.

Mary Ellen had the same gift as Dotty for putting others first. She did not like to speak, but she entered the prize-speaking contest because to her mother, who had won the contest years before, it meant a great deal.

The contest was held in a neighboring school. When it began, I was troubled. Several contestants from other schools, dressed so formally as to make Mary Ellen's simple dress seem almost out of place, gave highly dramatic recitations. I was fearful for her reactions as she waited her turn. But when she rose I was, again, filled with pride, for she spoke easily, smilingly, with a simplicity that was heart-warming.

When it was time for the decision, the chairman of the judges turned, smiling—to our Mary Ellen. Early the next morning the telephone rang. I was pleased to hear her voice. "I wanted to tell you—there wasn't any chance last night—it wasn't my speaking that won. It was your help that made it possible." Just as Dotty had found a way to be selfless in failure, so Mary Ellen's first thought, in victory, was the generosity so natural to her.

It was a privilege to coach debate. We started out that first year with a team—and, alas, also a coach—that had never had any experience in debate. We entered a radio league with a number of suburban schools which had debated the year before. Being young and inexperienced, I did not foresee the pitfalls awaiting us until an acquaintance, a professor in a large university, warned me.

"Sending a raw team into a radio debate with seasoned debaters is a dangerous thing," he said. "They may suffer a defeat that will affect them a long, long time."

I worried about it then. I didn't know my team, or I shouldn't have worried. I did what, according to the rules, I was permitted to do. They did the rest. Day after day, they studied and revised, then scrapped whole speeches and began all over. They never faltered, they never doubted. They just worked. I saw their arguments take shape, their thinking grow clear and logical, their sentences terse and lucid. I saw their heads bent above the sheaf of papers, saw them starting over with the thoughtful frowns that indicated they saw beyond what they had seen before. And I was proud.

But even that pride, or my pride at the end of the final debate of the series, when the last decision was in and they were co-champions of their league, could not equal what I was to feel the next year.

That next year—all of the first team having been graduated—we started out with a second inexperienced team. And, with everyone at home awaiting victory, we lost our first debate. We found ourselves eliminated from the series at the very start. I have never faced any defeat that was harder, for their sakes, than that one. To lose is hard. To follow a championship team and lose at the outset is an even more difficult blow to take.

On the way home, I tried desperately to think of something which could ease their disappointment. There had been no talk of the decision, no alibis, no criticism, but only praise for the other team. For sportsmanship like this, I thought, there must be something I can do.

Suddenly, the captain, bringing the earnest discussion they had been having among themselves to an end, spoke to

[*Turn to page 84*

Start a New Day of happier living

with dependable LP-GAS *

Then *every* day starts right—just ask the man who packs this breakfast away! Or the lucky lady who's discovered how *easy* cooking can be. With LP-GAS she can't go wrong. She wants high heat to start—it's here in a *split second*. Low heat for the bacon and coffee? Again the flame responds *instantly*—no shifting to another burner! ☆ She knows what heat she has; she *sees* the flame. It heats the food, *not* the kitchen! Cooks faster, cleaner, easier, better . . . yet her beautiful automatic gas range costs many dollars *less* than automatic ranges using other fuels! ☆ LP-GAS works without fail 24 hours a day *wherever you live*. It does your cooking, water heating, refrigerating, home heating, clothes drying, incinerating—and *never* lets you down. What's more, you can store this fuel and always have plenty on hand. ☆ You may know it as bottled gas, tank gas, butane, propane, or by a local brand name . . . they're all *Liquefied Petroleum Gas*. For approved appliances and dependable service, see your LP-GAS dealer.

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Start *right*, at the windows, for thrilling home beauty. It's easy, *and inexpensive!* Depend on adaptable Kirsch decorating ideas...and fine Kirsch drapery hardware, the complete line for *extra* beauty and durability, made by the leader in the business. Kirsch traverse rods, for example, work better and the bone-hard finish looks better longer. Four adjustable length-sizes, for windows up to 150 inches wide. *Drapery hardware is not all alike!* Ask for ... *insist on* ... genuine Kirsch traverse rods and accessories for assured satisfaction.

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Are today's children learning the right values?

[*From page 82*]

me. "Do you suppose," she said eagerly, "that it's too late to enter a platform league?"

I could not speak for a moment. Already the team, in the face of public defeat, was on its feet and ready to go. It would mean a whole new technique to learn, that of speaking, not reading, and before an audience. It meant preparing an entirely new topic. And competing with schools not only accustomed to platform debate, but already weeks ahead in preparation.

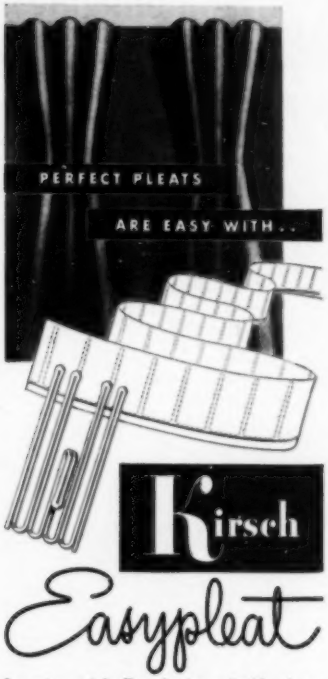
I smile when I think, even now, that I had looked upon that team, even for a moment, as defeated. They learned the new technique, they prepared the new topic in record time, and they debated in the platform league. At the end of the season, the school's name was engraved on the championship plaque!

But, to my mind, they were never more truly champions than that day, months before, when they turned their backs upon failure and went on to win. I wonder, now, if our children today are made of that kind of stuff.

These farm youngsters I taught had, for the most part, a wonderful inner poise, which might sometimes be taken by those who did not know them for mere passivity.

But this poise, while it often hid itself under an outer shyness, gave them an enviable balance and perspective. They had grown up in the midst of life and they knew at first hand the peace and struggle of the natural world. They were strong with the strength of the outdoors and gentle with the gentleness that belongs to that kind of strength.

I remember Tommy, who taught me something of values. He was a bright boy but he was failing English. He came on Saturdays to work at the place where I roomed and he knew that I had made the acquaintance of a baby robin that was unusually tame. One Monday he came in to tell me that the little bird was dead. "He was drowned in the brook," he said gravely. "I lifted him out but it was too late." Later in the day, he came back. "I've been thinking," he said. "I think



Luxurious triple French pleats, double pleats, and tailored box pleats are easy now, with the magic of Kirsch *Easypleat.* You can make beautiful, "professional" pleats in any fabric—any width. The simple directions are easy to follow; a handy dimension chart even shows the *width-after-pleating* for all three usual widths of material. Trust Kirsch to offer the very *handiest* pleating system ever! Ask for Kirsch *Easypleat* by name!

BOX PLEATS
Formerly "for the experts only"...now they take shape for you like magic with the help of Kirsch *Easypleat.*

DOUBLE PLEATS
Double French pinch pleats, and triple pleats (like those at the top of this column) are easy with *Easypleat.*

"Choose the Name you Know"
—KIRSCH

if I hadn't minded my shoes, and just waded in, I could have saved him."

I was moved by his concern. It stayed in my mind all day, and that night when I graded his theme, which was as usual failing, I added a note: "I would rather have you care for living things which need your care than have you hand in a perfect theme every time." Baby robins were out of the nest late in May that year. In June, Tommy took and *passed* his state examination in English. I think it was a sort of exchange that his sense of fairness demanded.

My pupils, I found, took people pretty much on the basis of what they were. Their concerns were predominately concerns outside themselves, and they were not easy prey to pettiness and prejudice. Their sense of values did not concern material possessions. They judged candidly and openly on the basis of merit.

They were fearless because they had known danger. They lived close to the kind of beauty that is eternal and felt a strong kinship with their world. They had seen God's handiwork and remembered its majesty. Their humor was clean and harmless and devastatingly contagious.

They had simple fun. They fished, swam, hunted, went hay riding and sleigh riding, played baseball, and all the rest. Some of my happiest hours I spent with them on the ice-bound lake learning to skate between the giant bonfires. With them, work and pleasure often went hand in hand. The pride and interest of these children in what was their own renewed one's hope and faith.

It was like that—teaching in the small schools where it was possible to share so much. I knew my pupils—and loved them—well. It was gratifying to rediscover daily their great sense of values—a rich gift passed on to them by their parents. I wonder if children today are getting so rich a gift from *their parents.* **END**

Terraced land

More beautiful than any row
That runs its straight length down
the land,
Are these bright sweeping ones
that flow
Like ocean waves upon the sand.
Purposed to hold the precious
rain—
That silver wealth of any year—
More and more on hill and plain
The graceful, curving rows appear,

Furrowed through knowledge
gained at last
That winds will snatch the earth
away,
And rains will waste, unless held
fast.
So men have tilled their lands to
stay
Those fierce dark inroads, the
black hand
That takes its toll from broken
sod.
Ah, wise are men who understand
The warnings given by their God.

—*Grace Noll Crowell*

Pattern Service

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Buy products packed in valuable Cotton Bags – SAVE container costs! Here are two of many smart fashions especially designed for sewing with Cotton Bags.

. . . make this smart looking jumper – and the full sleeved blouse, with only four 100 lb. Cotton Bags.

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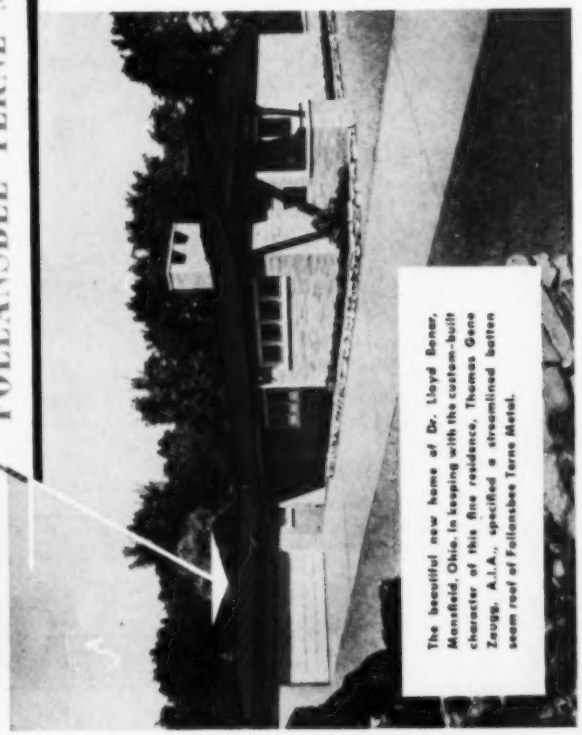
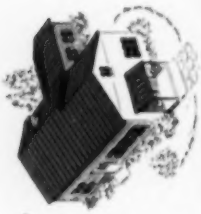
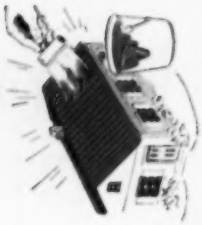
MODERN HOMES NEED THE *Permanent* ROOFING PROTECTION OF FOLLANSBEE TERNE METAL



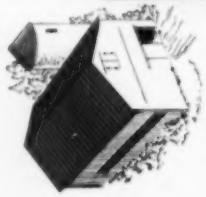
The beautiful new home of Dr. Lloyd Boner, Mansfield, Ohio, in keeping with the custom-built character of this fine residence, Thomas Gace Zaugg, A.I.A., specified a streamlined batten seam roof of Follansbee Terne Metal.



Here's a roof that weatherseals tightly and permanently . . . is fire resistant and windproof . . . gives absolute protection from lightning when properly grounded. And Follansbee Terne Metal is easily painted *any color, any time*. Its characteristic long service life makes it a good buy.



The lifetime roofing protection offered by Follansbee Terne Metal makes it ideal for the expansive roof areas of today's rambling suburban and farm homes.



Ask your sheet metal contractor for full details about Follansbee Terne Metal Roofing and a copy of the booklet "Beautiful Lasting Roofs."

Follansbee Terne Metal Roofing has proved remarkably durable on homes, barns, equipment sheds and utility buildings for over half a century. Farmers from coast to coast have found that no other roofing material offers them so much or suits all their roofing needs so well.

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Homemade range equipment

The poultry range equipment pictured below was built by Harold Bay, Salem, Missouri, for a total of $14.50. The lumber was cut on the Bay farm and hauled to a mill for sawing.

The range feeders are 5' long and hold 50 pounds of feed. This equipment takes care of 125 to 150 pullets with a minimum of work. The shelter has a straw roof which is both cool and cheap, and is held in place by old woven wire. The wire on the shelter, and the barrel and float valve for the automatic waterer, were the most expensive parts of the equipment.

The Bays built three shelters and the equipment to go with them for $43.50. Thus they raised 450 young birds on clean range.—*N. R. Clizer.*

Photograph: Author

Sun porch for chickens

The job of brooding chicks is easy on the Marvin Goodwin farm, Sedalia, Missouri. The 10'x12' brooder house is permanently located, and during the brooding period a 9'x12' range shelter is pulled up beside the brooder house. This range shelter is used as a sun porch.

The chicks are kept off the ground until moved to clean range at 8 weeks of age. Feed is kept in the laying house a short distance from the brooder house. A 55-gallon water barrel with automatic float valve is used. Last spring 306 chicks were started April 5, and 302 were raised to 8 weeks of age.—*E. B. Winner.*

Let ME tell you...
How to raise 4 to 4½-lb. chickens in only 12 weeks—*at less cost!* *

... At Less Cost? *Yes, Sir!* Figure for yourself:

For less than $35 out-of-pocket cost, you can feed me and 99 others—100 of us—for 12 weeks. And it's possible for you to have between 400 and 450 pounds of chicken!

Here's how: Just give me a starter made with two parts of ground yellow corn and one part of MoorMan's famous Chick Mintrate. That's all ... only one pound of Chick Mintrate to every two pounds of corn.

Man, Oh, Man, what a high energy feed! When that starter gets to my gizzard, things happen. Chick Mintrate *explodes* energy in that corn like no other concentrate. I get all the proteins, minerals, vitamins—yes, and even a new antibiotic—I need to make me zoom!

***In many battery tests** on thousands of chicks at MoorMan's, straight-run chickens averaged 3.28 pounds in 10 weeks. And it took an average of only 2.57 pounds of total feed to make each pound of chicken. That's growin' big ... on a little feed! And at less cost to you!

***Here are typical results** reported by many Mintrate users: "New Hampshire Reds averaged 4 lbs. in 10 weeks ..." "Sold 4-lb. cockerels at 10 weeks ..." "My Leghorns averaged 4½ lbs. in 12 weeks and 3 days ..." "5-week-old hybrid chicks averaged 1½ lbs. ..." "880 Leghorns completely feathered in 5 weeks ..." "Some White Rock cockerels weighed 5 pounds at 12 weeks."

Yes, no other high-energy chick starter and grower brings out the quick start, fast-growing and thrift-making qualities in your good corn so completely as Chick Mintrate. Ask your MoorMan Man about Chick Mintrate, or write Moorman Mfg. Co., Dept. R2-2, Quincy, Ill.

MoorMan's

(Since 1885)

Makers of Protein and Mineral Concentrates Farmers Need, But Cannot Raise or Process on the Farm

FOR GOOD WE FEED MoorMan's

KILL TOUGH BRUSH *this winter!*

There is no "off-season" for Dow's effective brush killers. In addition to foliage spraying, both Esteron® Brush Killer and Esteron 245 are adaptable to stump and basal bark spraying at any season of the year.

Now is the time to get rid of brush, brambles and poison ivy in your pastures and make way for a bigger yield of feeding grass. You can reclaim good grassland that is overgrown with brush and trees and clean out your fence rows, ditch banks and roadsides. Winter treatment reduces the need for spraying in your busy growing season.

Particularly good results have been obtained from winter basal bark applications—spraying brush stems and tree trunks from the ground line to a height of 18 inches, including all exposed roots—with Esteron Brush Killer or Esteron 245 in oil. Both products contain proved, powerful, low-volatility esters which penetrate the bark to accomplish the kill. A useful variation of this treatment is spraying freshly cut stumps and stubs to control resprouting.

Your Dow dealer will be glad to give you all the facts about Esteron Brush Killer and Esteron 245 and show you how to achieve year-around brush control on your farm.

ESTERON BRUSH KILLER and ESTERON 245

Containing the new highly effective LOW-VOLATILITY ESTERS

Use Dependable Dow Agricultural Chemical Products

• Weed, Brush and Grass Killers • Insecticides • Fungicides • Plant Growth Regulators • Grain and Soil Fumigants • Wood Preservative

THE DOW CHEMICAL COMPANY
Agricultural Chemical Department
MIDLAND, MICHIGAN

DOW
CHEMICALS
INDISPENSABLE TO INDUSTRY AND AGRICULTURE

THE Farm

By Gus Larson

What makes freshly plowed soil smell so good? Does a sick plant have a fever? Can celery-flavored turkeys be raised? If these sound like things you want to know, let's get on to Question 1.

Score 5 points for each correct reply. If you score (a) 90 to 110 points—excellent. (b) 75 to 85 points—very good. (c) 50 to 70 points—passed. (d) 45 points or below—failed.

1. The human adult body generally contains about 24 trillion red blood cells. If laid end to end these cells would stretch (a) 5 miles (b) 100 miles (c) 116,000 miles.

2. The smell of freshly plowed soil is one of the many rewards of farming. This smell results from (a) tiny organisms in soil (b) dead plants (c) escaping mineral gas.

3. Wheat farmers now use thermometers to tell when soil is cool enough to plant winter wheat. The soil should be cooler than (a) 65 degrees (b) 40 degrees (c) 30 degrees.

4. Most farm accidents happen at a certain hour of the day. What is this most hazardous hour? (a) 10:00 a.m. (b) 4:00 p.m. (c) 11:30 a.m.

5. The younger hatching eggs are when placed in the incubator, the healthier the chicks will be. This statement is (a) true (b) false.

6. The average farm hired man works 9 hours and 20 minutes a day in the busy season. How long does average farm operator work? (a) 7 hours (b) 11 hours (c) 15 hours.

7. A good hen now lays from 200 to 300 eggs in a year. In 1800 a prize layer would produce about (a) 100 eggs yearly (b) 60 eggs yearly (c) 10 eggs yearly.

8. If you want turkeys with a delicate celery flavor, all you have to do is to feed them chopped celery the last few weeks before slaughtering. This is (a) good advice (b) poor advice.

9. Mrs. Ruth Pearson said: "Don't let pullets roost in trees. They won't lay eggs." Mr. Pearson said: "Tree roosting makes for good breast formation." Who is right? (a) Ruth (b) Mr. Pearson.

10. When plants get sick their temperatures go up. They actually get fevers just as people do. These statements are (a) true (b) false.

11. The human heart pumps blood into 12,000 miles of vessels which make up the circulatory system. How much blood does the heart pump in a day? (a) 50 gallons (b) 10 gallons (c) 5,000 gallons.

Quizbox

12. Why do grazing cows so often skip eating the dark green grass which grows over manured spots? Is it because such grass is (a) less sweet (b) too sweet?

13. Where, in the egg-manufacturing tube, is the shell put on the egg? Would you say (a) at the start of the tube (b) at the end of the tube?

14. Remember the flying saucers? Just what were they? (a) mirages (b) stratosphere weather-recording devices used by Navy (c) experimental rocket ships.

15. Henry Will said: "Never put sawdust or wood chips on soil unless you want to sour it." Fred Eaton replies: "Nonsense." Who is right? (a) Henry (b) Fred.

16. Silage made from alfalfa-bromegrass is highly similar to corn silage in feeding value for milk production. (a) false (b) true.

17. What is the noise one hears in a seashell? Is it (a) really the roar of the ocean surf (b) noises in air about you (c) electrical impulses from stars?

18. When a female chick is hatched it has more potential yolks than it will ever use. This statement is (a) true (b) false.

19. How many dollars do Midwest farmers have invested for each full-time worker employed? (a) $5,000 (b) $10,000 (c) $35,000 to $50,000.

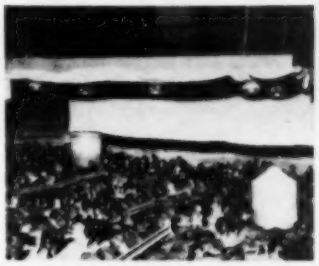
20. Do you know your geography? What's your guess as to how many cities and villages there are in the United States? (a) about 20,000 (b) about 2,000 (c) about 300,000.

21. Black hay in the mow means that the temperature of the hay is above 200 degrees. At what temperature will hay burst into flame? (a) 300 degrees (b) 200 degrees (c) 250 degrees.

22. Farmer Henry Roth said: "Rattlesnakes always rattle before they strike." Mrs. Roth said: "Rattlesnakes sometimes strike without warning." Who is right? (a) Henry (b) his wife.

Answers on page 90

Raise chicks easier, save more pigs and lambs with G-E infrared lamps

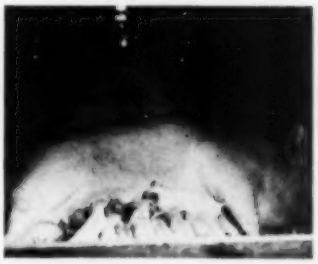


LETS YOU SEE ALL CHICKS ALL THE TIME

Chicks are kept warm and in full view under the G-E infrared lamps above. There's more room for waterers and feeders. Chicks are free to choose own temperature range. Litter stays dry.

CUTS COST, LABOR OF BROILER GROWING

General Electric infrared lamps in this broiler house make for easy maintenance. Lamp installation is relatively low-cost. Units can be raised out of the way for easy house-cleaning.



KEEPS NEW-BORN PIGS FROM CHILLING

Photo shows one of pens in farrowing house. A General Electric infrared lamp in each pen keeps pigs from chilling even in coldest weather, saves 1 to 3 more pigs per litter.

SURE, SAFE HEAT KEEPS LAMBS ALIVE

Lamb brooder above can be placed between two pens, using one infrared lamp —or separated into two brooders. G-E 250-watt infrared lamp provides plenty of heat to help save new-born lambs.

GIVES DEPENDABLE, LOW-COST HEAT

Use hard-glass model where likely to be splashed by water. It resists breakage. Porcelain sockets are recommended.

FREE CHICK BROODING BOOKLET!

Answers your questions about infrared brooding. Write to General Electric, Lamp Div., Dept. 166-SF-2, Nela Park, Cleveland 12, Ohio.

You can put your confidence in—

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In the Home,
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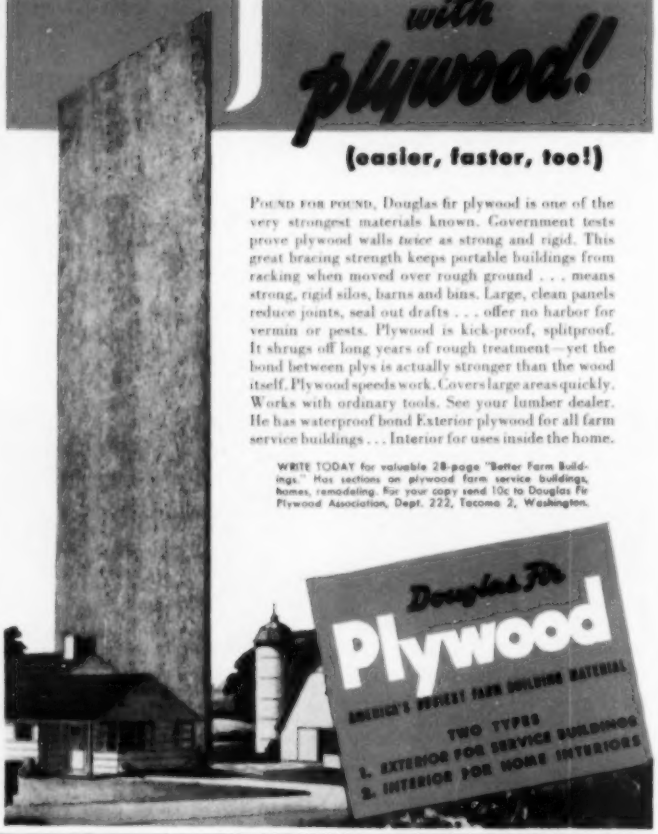
You'll build stronger with plywood!

(easier, faster, too!)

POUND FOR POUND, Douglas fir plywood is one of the very strongest materials known. Government tests prove plywood walls *twice* as strong and rigid. This great bracing strength keeps portable buildings from racking when moved over rough ground . . . means strong, rigid silos, barns and bins. Large, clean panels reduce joints, seal out drafts . . . offer no harbor for vermin or pests. Plywood is kick-proof, splitproof. It shrugs off long years of rough treatment—yet the bond between plys is actually stronger than the wood itself. Plywood speeds work. Covers large areas quickly. Works with ordinary tools. See your lumber dealer. He has waterproof bond Exterior plywood for all farm service buildings . . . Interior for uses inside the home.

WRITE TODAY for valuable 28-page "Better Farm Buildings." Has sections on plywood farm service buildings, homes, remodeling. For your copy send 10c to Douglas Fir Plywood Association, Dept. 222, Tacoma 2, Washington.



SAME LAND...
BIGGER FARM

See Me On
Page 145

FIELD CHOPPING

If you are using or plan to use a field chopper for your forage crops, write at once for facts on how to obtain the maximum benefits from chopped forage.

MARTIN STEEL PRODUCTS CORPORATION
502 Longview Ave., Mansfield, Ohio

Enjoy better farm living . . .

. . . by letting *Successful Farming* continue to help you solve all your farm problems.

Made $900 IN SPARE TIME

"I made about $900 last year with my Foley equipment, sharpening 950 saws in my spare time." Leo H. Mix

MAKE UP TO $3 OR $4 AN HOUR

With a Foley Automatic Saw Filer you can file hand, band and circular saws so they cut smoother and faster and bring you repeat cash business. "I get work from 20 to 30 miles away"—C. H. Smith. No canvassing—no experience needed.

FREE BOOK "MONEY MAKING FACTS," shows how to start at home in spare time with small investment. Write today—no salesman will call.

FOLEY MFG. CO.
269-2 Foley Bldg., Minneapolis 18, Minn.

Answers to farm quizbox

[*From page 88*]

1. (c) is correct. J. D. Ratcliff, writing in *Redbook*, reports cells would stretch 116,000 miles.

2. (a) is correct. These organisms (actinomycetes) are same type that produces streptomycin and other lifesaving drugs.

3. (a) is correct. Frank Shideler, Colorado A. and M. College, reports that when soil is cooler than 65 degrees there is less loss from root rot.

4. (a) is correct. Purdue University is our authority.

5. (a) is correct. University of Illinois scientists state chicks incubated from day-old eggs are healthier than those hatched from 14-day eggs.

6. (b) is correct. Dairy folks of Wisconsin and Vermont and grain harvesters of North Dakota work longest.

7. (b) is correct. In 1800, hens were bred to lay 60 eggs a year.

8. (a) is correct. Walter C. Thompson, Rutgers University, states celery feeding gives turkeys an extra-delicate flavor.

9. (b) is correct. Roosting in trees is not harmful to pullets.

10. (a) is correct. California's Prof. C. E. Yarwood has taken temperatures of sick plants.

11. (c) is correct. Human heart pumps about 5,000 gallons daily.

12. (a) is correct. Oklahoma agronomists find that cows prefer sweeter grass which is not fertilized.

13. (b) is correct. Shell is put on egg in uterus which is last stop before being laid.

14. (b) is correct. Flying saucers were stratosphere weather-recording devices.

15. (b) is correct. Research by A. C. McIntyre, S.C.S., indicates wood chips will not sour soil.

16. (b) is correct. Purdue University Experiment Station so reports about alfalfa-bromegrass silage.

17. (b) is correct. Noises in air are reflected into ear.

18. (a) is correct. The Ralston Purina Company reports a hen is born with many yolks. Proper feeding determines how many develop.

19. (c) is correct. This is three times $12,500 investment per worker advertised by industry.

20. (a) is correct. There are about 20,000 cities and villages in the United States.

21. (a) is correct. Hay in mow will burst into flames at 300 degrees if there is enough oxygen, reports University of Wisconsin.

22. (b) is correct. Rattlesnakes sometimes strike without warning. **END**

Speed Up Hay Curing

with Allis-Chalmers POWER Rake and Tedder

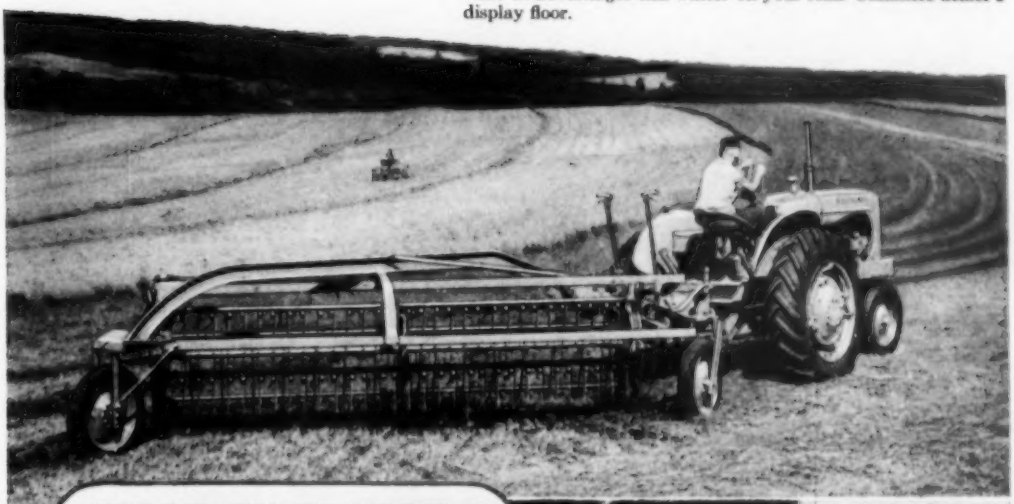
You've waited for the day when you could make hay like this. Now you can have closer control over leafiness, color and curing time . . . with a *speed-selector* rake.

Allis-Chalmers brings you the first *gear-shift* rake, operated by tractor power take-off . . . with the widest range of speeds ever built into a rake.

Two forward gears! A reverse for tedding! Combined with your tractor gear speeds and throttle range, they give you a *just-right* raking speed for every crop and field condition. Slower for fragile, delicate-leaf hay. Faster for heavy, damp, green material or combined straw.

When drying conditions are difficult and curing is slow, reverse the reel for tedding. Gently lift and aerate hay in either swath or windrow to speed up curing.

It's the master touch in raking. See all these outstanding built-in advantages this winter on your Allis-Chalmers dealer's display floor.



ALLIS-CHALMERS
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

Here's the way to quick-cure damp hay. *Tedding* with Allis-Chalmers Power Rake in reverse gear lifts hay gently from swath or windrow. Rake teeth can be reverse-angled to comb hay out of the wet stubble and move it over to dry ground.

You can *twin*row your hay with this true-steering rake. Straight twin-windrows cut driving distance in half for the ROTO BALER; make ideal rolled bales. Patented fixed direction rear wheel and castering front wheel steer true as an arrow. Smooth power drive and 33 ball and roller bearings — engineered for tractor speeds.

ROTO-BALER is an Allis-Chalmers trade-mark.

Tearing your hair over **crusty** pans?

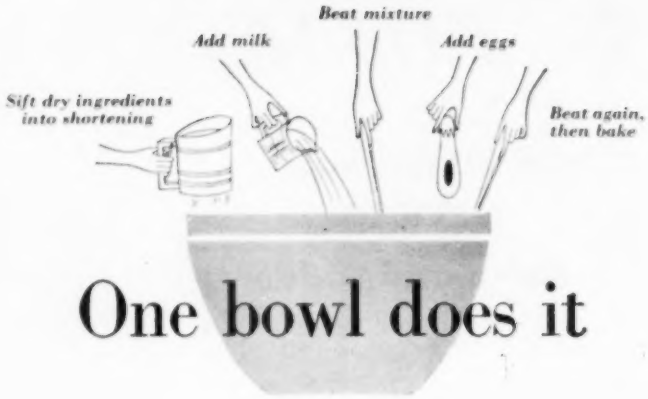
BRILLO
soap pads–
TWICE the **SHINE**
in half the time!

Scientific tests *prove* Brillo gives aluminums *twice the shine in half the time!* A square metal-fiber Brillo pad-with-soap *lifts* off crust! Brillo has jeweler's polish. Outshines all types of cleansers tested!

RED BOX—*soap filled pads*
GREEN BOX—*pads plus cake soap*

THRIFTIER—5 AND 12 PAD BOXES

New improved Brillo lasts longer!



One bowl does it

By Susan Manne

You've heard of the "easy-mix" method and the "quick-mix" method, the "one-bowl" method, even the "new-method" method of cake mixing. Sheer confusion may find you still using that tried-and-true cake recipe Mother liked so well. It leaves you with a good cake—but with a stiff right arm and a sink full of dirty dishes as well.

There IS an easier way! The truth of the matter is that all the methods mentioned above are basically one and the same. Call it what you will, it's a way of cake mixing that takes one bowl and about four minutes' mixing time. Not a brand-new discovery under any name, but a method that bears repeating, because it's a timesaver and a dishsaver.

How does this method differ from standard cake recipes? Like this:

- Dry ingredients are added directly to the shortening.
- Sugar is sifted along with other dry ingredients.
- There is no creaming of shortening and sugar.
- There is no separate beating of egg yolks or whites.

You'll need special recipes to follow this mixing method, and here are a few: chocolate, white, yellow, and spice—a cake favorite for every member of your family.

Peppermint Cake

Makes two 8-inch round layers

Stir in bowl until soft:
½ cup vegetable shortening*
Sift together into shortening:
2 cups sifted cake flour
1¼ cups sugar
3¼ teaspoons baking powder
1 teaspoon salt
Add . . . . **¾ cup milk**
1½ teaspoons vanilla
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Add . . . **½ cup egg whites**
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Scrape sides and bottom of bowl often.
Turn into two greased 8-inch round cake pans.
Bake at 375° for 20 to 25 minutes.

* Or use **½ cup butter** or **margarine,** and then use **¾ cup minus 2 tablespoons milk.**

Peppermint Frosting

Combine **1½ cups sugar**
1 tablespoon white corn syrup
5 tablespoons water
2 egg whites in top of double boiler
Mix well.
Beat constantly with rotary beater 4 to 7 minutes over boiling water, or until mixture holds a peak.
Add . . . . . **½ cup crushed peppermint-stick candy**

Magic Spice Cake

Makes two 9-inch layers or one 13x9x2-inch cake

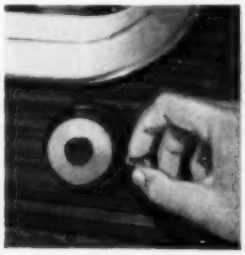
Stir in bowl until soft:
¾ cup vegetable shortening*
Sift together into shortening:
2¼ cups sifted cake flour
1 cup granulated sugar
1 teaspoon baking powder
1 teaspoon salt
¾ teaspoon soda
¾ teaspoon cloves
¾ teaspoon cinnamon
Stir in . . . **¾ cup brown sugar**
Add . . . . **1 cup buttermilk**
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Add . . . . **3 eggs**
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Turn into two 9-inch round layer pans, or a 13x9x2-inch pan, all lined with plain paper.
Bake at 350° for 30 minutes for layers and 45 minutes for rectangular cake.

*Or use **¾ cup butter** or **margarine,** and then use **1 cup minus 2 tablespoons buttermilk.**

[*Turn to page 94*

MOTOROLA TV illustrated, 20 inch mahogany console model, 21K1. Also available in limed oak, model 21K1B.

SIMPLIFIED, SINGLE-CONTROL TUNING. Remarkable Target Tuner perfectly synchronizes picture and sound. Filtered-Clear pictures edge to edge with no fade, no drift, no further adjustments.



NEW! ACOUSTIMATOR TONE CONTROL —provides fully variable tone range, from treble to bass, for the famous "Golden Voice" sound—assures you of perfect listening enjoyment.

For television enjoyment

the Picture tells the story©

Exclusive new features in 1952 Motorola TV provide finer reception, full enjoyment even in distant "fringe" areas. When you compare the performance, *the picture tells the story* why 1952 Motorola TV is your best buy . . . finest quality at lowest possible prices.

EXCLUSIVE NEW AREA SELECTOR SWITCH—3 position switch boosts power for "fringe" reception . . . new Concentrated Power Chassis has revolutionary simplified circuits, improved compact design. You're assured of finer, more dependable reception in town or "way out of town!

NO GLARE ANNOYANCE. Exclusive Glare Guard eliminates up to 98% of reflected glare. Optically curved screen and non reflecting Absorbalite tube direct outside light interference down and away from the screen, out of eye range . . . for greater viewing comfort.

19 Beautiful Models to choose from . . . as low as $199.95

Slightly higher South and West

For the picture of the year, it's the buy of the year

Motorola TV

proved most dependable

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Specifications subject to change without notice.

Mrs. Arthur Anderson of Madison, S. D., praises handy Dry Yeast

Governor Receives Winning Entry From Prize Cook

After winning the special "Governor's Award" in a State Fair cooking contest, Mrs. Arthur Anderson presents her winning entry to the Governor himself—Governor Sigurd Anderson of South Dakota.

Of course it was a thrill for Mrs. Anderson to win the Governor's Award . . . but her cooking triumphs didn't end there. The judges awarded her 5 prize ribbons as well! And like so many prize-winning cooks, Mrs. Anderson swears by Fleischmann's Active Dry Yeast. "My, but it's fast rising," she says. "This handy Dry Yeast is a grand help!"

It's wonderful—the rich, delectable flavor of yeast-raised goodies. A treat for your family—and nourishing, too! When you bake at home, use yeast. And use the best—Fleischmann's Active Dry Yeast. This grand Dry Yeast is fast rising, fast dissolving—always gives you good results. Buy several packages today.

Decorating advice. Stores offering **Successful Farming's** home planning service are listed on page 125. Visit store nearest you for help with decorating problems.

Want a *Sweet* refrigerator?

CLEAN WITH SODA!

Soda cleans in half the time...no rubbing, no scrubbing

Arm & Hammer and Cow Brand Baking Soda are pure Bicarbonate of Soda, U.S.P.

● **Soda sweetens as it cleans**—whisks away all odors with the spots and spills. And without scrubbing! Just sprinkle soda on damp cloth and wipe inner surfaces. Soda quickly emulsifies greasy film . . . removes even sour musty odors that adhere to enamel. And there are **no suds, no grit** to rinse away. Wash ice trays in soda solution. Arm & Hammer or Cow Brand Baking Soda couldn't be safer and costs **less than ½¢ a week.** Recommended by 22 leading refrigerator manufacturers!

Write for FREE COOKBOOK. Church & Dwight Co., Inc., 70 Pine Street, New York 5, New York.

One bowl does it

[*From page 92*]

Maple-syrup Boiled Frosting

Boil . . . . . **1¼ cups maple syrup** to firm-ball stage or to 242° on candy thermometer. (You may use pure maple syrup or a blend of maple syrup and cane sugar)
Beat . . . . . **2 egg whites** until stiff
Add syrup to egg whites, beating constantly till of spreading consistency.
Spread on tops and sides of cake.

Chocolate-Fudge Layer Cake

Makes two 8-inch layers

Stir in bowl until soft:
½ cup vegetable shortening*
Sift together into shortening:
1¾ cups sifted cake flour
2¼ teaspoons baking powder
¾ teaspoon salt
1 cup plus 2 tablespoons sugar
Add . . . . . **⅔ cup milk**
Mix until flour is dampened.
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Add . . . . . **2 eggs**
Beat with a mixer at low to medium speed for 1 minute, or 150 strokes vigorously by hand.
Turn into two 8-inch round pans, lined with plain paper.
Bake at 375° for 25 minutes.
Cool and then remove from pans.

* Or use **½ cup butter** or **margarine,** and then use **⅔ cup minus 1 tablespoon milk.**

—*Alma Schledewitz, Nebraska*

Rich Chocolate Frosting

Melt . . . . . **4 1-ounce squares unsweetened chocolate** over hot water
Add . . . . . **2½ cups sifted confectioners' sugar**
¼ cup boiling water
Stir until smooth.
Beat in . . . **3 egg yolks,** one at a time, beating well after each addition.
Add . . . . . **4 tablespoons soft butter** or **margarine,** 1 tablespoon at a time, beating after each addition.
Beat to spreading consistency.

Fluffy Golden Cake

Makes two 8-inch square layers

Stir in bowl until soft:
⅓ cup butter or **margarine***
Sift together into butter:
2 cups sifted cake flour
1⅓ cups sugar
3 teaspoons baking powder
1 teaspoon salt
Add . . . . . **⅔ cup minus 2 tablespoons milk**
½ teaspoon lemon extract
½ teaspoon vanilla
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.

Add ..... **1/3 cup milk**
1/3 cup (4) egg yolks
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Scrape sides and bottom of bowl often.
Turn into two 8-inch square pans, greased and floured.
Bake at 350° for 25 minutes.
Cool for 3 minutes; remove from pan.

* Or use **1/3 cup vegetable shortening,** and then use **2/3 cup milk** for the first addition.

Lemon Frosting

Combine **1 3/4 cups confectioners' sugar**
1/4 cup melted butter or **margarine**
1/4 cup lemon juice
1 tablespoon cream
1/8 teaspoon grated lemon peel
Beat smooth.
Add ..... **1 3/4 cups confectioners' sugar**
Beat to spreading consistency.
Spread on tops and sides of cake.

Chocolate Cake

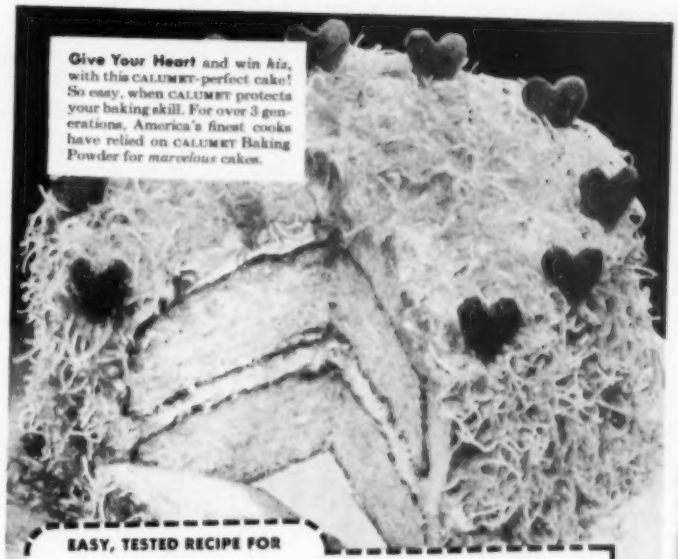
Makes two 9-inch square layers
Stir in bowl until soft:
3/4 cup vegetable shortening*
Sift together into shortening:
2 cups sifted all-purpose flour
2 cups sugar
1 teaspoon salt
2/3 cup cocoa
1 teaspoon soda
Add ..... **1 cup milk**
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Stir in ... **3/4 teaspoon baking powder**
1/4 cup milk
3 eggs
1 teaspoon vanilla
Beat with a mixer at low to medium speed for 2 minutes, or vigorously 300 strokes by hand.
Scrape sides and bottom of bowl often.
Turn into two 9-inch square pans, lined with plain paper.
Bake at 350° for 30 to 35 minutes.

*Or use **3/4 cup butter** or **margarine,** and then use **1 cup minus 2 tablespoons milk.**

—*Dolly Murray, Oklahoma*

Seven-minute Frosting

Mix ..... **2 egg whites**
1 1/2 cups sugar
1 1/2 teaspoons light corn syrup, or **1/4 teaspoon cream of tartar**
1/3 cup cold water
dash of salt in double boiler
Cook about 7 minutes, beating constantly with rotary or electric beater until mixture forms peaks.
Remove from heat.
Add ..... **1 teaspoon vanilla**
Beat to spreading consistency.
Spread on tops and sides of cake.



Give Your Heart and win *his*, with this CALUMET-perfect cake! So easy, when CALUMET protects your baking skill. For over 3 generations, America's finest cooks have relied on CALUMET Baking Powder for *marvelous* cakes.

EASY, TESTED RECIPE FOR

"Heart-on-a-Plate"

WHITE LAYER CAKE

2 cups sifted Swans Down Cake Flour
2 1/2 teaspoons Calumet Baking Powder
3/4 teaspoon salt
1/2 cup shortening
1 cup sugar
1 cup minus 2 tablespoons milk
1 teaspoon vanilla
3 egg whites
1/4 cup sugar

Note: This recipe tested for use only with CALUMET Baking Powder—the brand recommended in *most* published recipes. CALUMET's scientifically controlled Double-Action lifts and lightens both in the mixing bowl and in the oven's heat...even "waits" for unavoidable delays before the baking starts. This Double-Dependability guards against baking failure...assures cakes of high volume and velvety crumb...flaky, tender biscuits ...perfect muffins, waffles, etc. No wonder twice as many women use CALUMET as any other baking powder!

Method. Sift flour once, measure, add CALUMET Baking Powder and salt, and sift together three times. Cream shortening, add 1 cup sugar gradually, and cream together until light and fluffy. Add flour, alternately with milk, a small amount at a time, beating after each addition until smooth. Add vanilla; blend. Beat egg whites until foamy, add 1/4 cup sugar gradually, and beat only until mixture will hold up in soft peaks. Beat thoroughly into batter.

Baking. Turn batter into two round 8-inch layer pans, 1 1/4 inches deep, which have been lined on bottoms with paper, then greased. Bake in moderate oven (375°F.) 25 minutes, or until done.

Frosting. Prepare Four Minute Frosting as directed below. Then spread between layers and on top and sides of cake. Sprinkle Baker's Coconut on top and sides of cake and garnish with red gumdrop hearts.

Four Minute Frosting. Combine 1 unbeaten egg white, 3/4 cup sugar, dash of salt, 3 tablespoons water, and 1 teaspoon light corn syrup in top of small double boiler. Beat about 1 minute, or until thoroughly mixed. Cook over rapidly boiling water, beating constantly with rotary egg beater (or at high speed of electric beater) 4 minutes, or until frosting will stand in stiff peaks. Remove from boiling water. Add 1/2 teaspoon vanilla and beat 1 minute longer, or until thick enough to spread. Tint a delicate pink with a few drops of red coloring.

A Product of General Foods

CALUMET BAKING POWDER
DOUBLE-ACTING

Magic is the Word for Tampax!

A product so small, so dainty—and yet featuring *so many improvements and advantages* for the benefit of women . . . women faced with that old problem of sanitary protection on "those days" of the month. . . . No wonder they call it "magic."

Let's take a look at this modern, doctor-invented wonder-product endorsed by many medical scientists and now used by millions of women. Here are the facts . . . . Tampax is worn internally, absorbs internally and is only a fraction of the bulk of the older types. Made of pure surgical cotton contained in slender individual applicators, making insertion easy and convenient.

NO BELTS
NO PINS
NO PADS
NO ODOR

No belts, pins or external pads with Tampax. No odor, no chafing. You cannot even feel it while wearing it! No bulges under clothing. You need not remove the Tampax for your tub or shower bath. And naturally, with its small size, it is easily disposable.

Buy Tampax at drug or notion counters. 3 absorbency-sizes. Regular, Super, Junior. Tampax Incorporated, Palmer, Massachusetts.

Accepted for Advertising by the Journal of the American Medical Association

Champions at good living

[*From page 43*]

This is Mrs. Nelson in her modern kitchen. She has dishwasher and garbage disposer; she likes her automatic washer because "I can wash even when I'm dressed up"

During the Depression and drouth years that followed, the farm led a sorry existence as rental property. In the meantime, circumstances took Wayne farther and farther from his birthplace. He attended Huron College, Huron, South Dakota, then went west and acquired a master's degree from the University of Southern California.

Wayne married and took up high-school teaching and coaching for four years. But he was an auditor for an oil company when World War II changed his title to Naval Communications Officer. After the war he went back into the oil business in California; then farming and ranching beckoned.

Wayne's father had been farming and ranching around the Onida, South Dakota, country all these years, and now he wanted to buy back the old place where Wayne was born. Would Wayne be interested in a partnership? With his father's help, Wayne decided he could make it a go.

What Wayne has accomplished in the nearly five years since his return to the Onida community is something! He's among today's pioneers who are rebuilding tired and abandoned land, making it produce and live again.

Today the Nelson partnership owns 3,800 acres of range land and 1,200 acres of wheat- and corn land. It's a big-scale combination of farming and ranching, and it has been particularly profitable in South Dakota during the last 10 years.

The Nelson system involves about 400 head of beef cattle on hand the year round. They buy 200 yearling steers each spring and pasture them for two summers, turning them into the cornfields and feedlots during the winter months. Then, depending on the feed and marketing situation, the steers are either finished and marketed, or sold to finish feeders.

The wheat is the farm's cash crop, whereas the corn is left on the stalk and the cattle turned into the fields.

Their land-rebuilding program has included dam and pond construction in all pastures; contour farming; ridging and listing practices; experimentation with new varieties of wheat for drouth and rust resistance; and shelter-belt planting.

The Nelson farmstead itself won first place in a state three-year farm-improvement contest which ended in 1950. The improvement in this case began from "less than scratch," for there was years' accumulation of debris to get rid of first. The old sheds were remodeled; the tottering pasture windmills were torn down and new ones constructed; the barns were straightened, repaired, and painted; corrals, feedlots, loading chutes, and spray pens were built for the cattle. The house was completely remodeled and modernized (see pages 42, 43, and 98); the old fences were replaced with new ones; and the whole farmstead was landscaped.

The Nelsons aren't satisfied yet. Their plan for farm improvement and increased production is continual. Mrs. Nelson already has new redecorating and refurnishing plans.

But land and home improvement alone don't fully occupy the Nelsons. They give of their time and talents to church work, the P.T.A., the Farm Bureau, Legion and Legion Auxiliary activities, and the Extension Club. Wayne is a member of the school board and the new hospital board.

Hobbies, music lessons, vacation travels to all parts of the United States, and occasional trips to Minneapolis, Huron, Yankton, or Sioux Falls to see a play, concert, fair, football or basketball game, or art show are some of the things that make for their continual self-improvement and enjoyment.

The Nelsons are champions at good living, for they know what it takes—work that brings rich rewards in accomplishment; a continual striving for self-improvement, and a giving of themselves and talents to some work that benefits their community as a whole.

More on page 98

How

has Life Insurance helped give Americans a broader concept of family responsibility?

By enabling the breadwinner to extend his support of the family beyond his lifetime

In millions of American homes today, the father is using life insurance to provide a regular income for his family beyond his lifetime.

The old concept of the breadwinner's responsibility to provide for his family for "as long as *he* shall live" is thus being broadened to "as long as *they* shall live" or at least for as long as they may need his support.

This broader concept is important both to America's families and to the economic life of the country which draws its strength from them. Its development has been aided by life insurance which is being used today to help replace the earnings of the breadwinners not only upon death but also upon retirement.

America's 83 million policyholders, through life insurance, are making America a better place to work in and to live in. They are providing for the future of their families and themselves. Their life insurance dollars are invested all over the country. And their healthy habit of thrift is one of the nation's strongest bulwarks against inflation.

Institute of Life Insurance

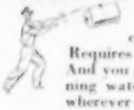
488 MADISON AVENUE, NEW YORK 22, N. Y.

It's New!

Tomorrow's water service today

Goulds new Close-Cupld Balanced-Flow . . . the only unit of its kind . . . a brand new self-contained water system that requires *no tank*. Years ahead of its time in construction and design, it's bringing true "city" water service to farms and homes beyond the reach of city water mains. If you're installing running water *for profit* and *convenience*, you'll find no better buy than the new Balanced-Flow.

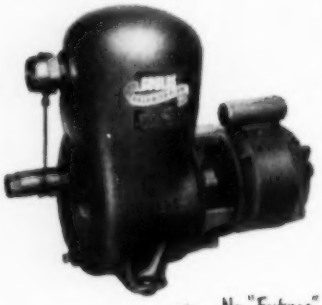
Needs NO Tank



It's a complete, self-contained water system. Requires no tank — no "extras." And you get really FRESH running water, always — whenever, wherever you want it.

It's a GOULDS

It's another "first" for Goulds — the world's largest manufacturer of pumps exclusively.



No "Extras" to Buy!

It's a complete water system, with no tank and fewer fittings needed, at an amazingly low price that's just about the cost of a conventional pump alone.

It's economical to operate, too. Owners tell us they can't even trace electricity costs.

ON DISPLAY NOW

Your Goulds dealer has this new pump on display now — he's carefully selected carefully trained a pump expert. Stop in and see the Goulds line.

Mail Coupon TODAY

GOULDS PUMPS, INC.
Dept. S-27, Seneca Falls, N.Y.

Please send me full, illustrative information on the new Close-Cupld Balanced-Flow Jet and your FREE 16-page illustrated book "The Goose that Lays the Golden Eggs." Include the name of my nearest distributor.

Name .....

Address .....

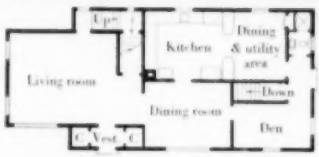
.....

Champions at good living

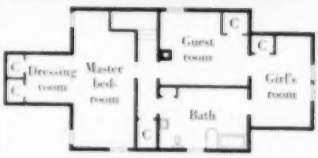
[*From page 96*]

Before. This is Wayne Nelson's birthplace and the old home that was abandoned until Wayne went to farming five years ago

After. The home today. It won first in South Dakota's Farmstead Improvement Contest, second in similar five-state contest



After. First floor



After. Second floor

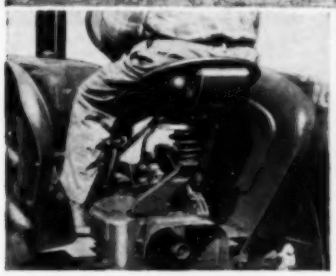
Wayne and his father. Luther Nelson, look over land that was hip-high in weeds when they bought farm back. The windmill pumps water from depth of 1,500 feet

Nelson men inspect ridging done by hired man. Ridging is done between corn rows to prevent soil's washing during heavy rains, blowing during strong winds. **END**

Take the wheel of a Massey-Harris...

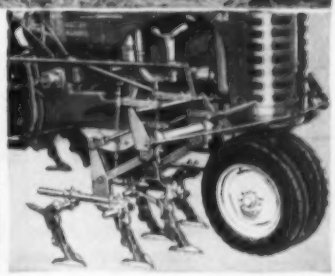
Make this 4 way test

1 COMPARE POWER. See how a Massey-Harris tractor delivers extra drawbar pull for tough hard going . . . greater smoothness on heavy-duty belt jobs. You'll plow deep furrows and get across the field faster. You'll pull through tough spots that slow down less powerful tractors of the same size. You'll have more power at the take-off to keep balers, pickers and combines humming.



2. COMPARE COMFORT... Massey-Harris' Velvet-Ride seat is hydraulically mounted, spring-cushioned . . . softens jars and jolts. Full-width platform has more standing room. Shock-resistant steering saves arms and shoulders. Easy-reach controls save time. Light-pressure, smooth-acting brakes have separate pedals which can be locked together. Streamlined hood provides clear vision.

3. COMPARE ECONOMY... Impartial tests prove that Massey-Harris tractors deliver more power per gallon of fuel than the average of all other leading makes. You'll make fewer trips to the fuel tank with a Massey-Harris . . . get more work done on each tankful . . . save many dollars in fuel each year. This means lower operating costs, greater profits.



4. COMPARE TOOLS . . . The full line of matched tools — mounted, semi-mounted and drawn, team up with Massey-Harris tractors for top performance. Full-view front mounted cultivators are easy to adjust. Rear mounted tools attach in one minute or less. Two-way, two-speed hydraulic control powers tools into the ground as well as out, maintains constant working depth.

See for yourself why a Massey-Harris tractor helps you do better field work . . . helps you get your crops in faster and easier . . . helps increase your yields and profits. Then check into the long-life features that count for more years of service . . . lower maintenance . . . fewer overhauls.

Yes, the more you look the more you'll understand why an ever-increasing number of farmers say: "Make it a Massey-Harris."

Your Massey-Harris dealer will be glad to demonstrate the Massey-Harris tractor that fits your needs, on your own farm. No matter what size of tractor you need — from a small one-plow size to a big 4-5-plow tractor — there's a Massey-Harris to fit your requirements. 31 models, with gasoline, distillate, diesel, or L. P. engines. For free folder by mail, use the handy coupon.

Make it a Massey-Harris

THE MASSEY-HARRIS COMPANY
Quality Avenue, Racine, Wis., Dept. B-110.

Please send me a copy of your latest catalog of Massey-Harris Tractors.

Name .....

Town ..... R.F.D. .....

County ..... State .....

MAIL THIS COUPON

Permaglas Electric Automatic Water Heater. There's a size and type (bottled gas, city gas or electric) for every farm and home need, U.L. and AGA approved.

Permaglas

the automatic water heater that

can't rust!

Brings the farm new comforts, convenience and savings!

Clean, hot water, instantly and always . . . hot water that's free of tank rust, always as sparkling clean as your water supply . . . provides comforts for the entire family, plus important farm sanitizing benefits.

That's why you should own a *Permaglas* automatic water heater, the only water heater with a glass-surfaced steel tank that can't rust because glass can't rust . . . the safe, clean, trouble-free water heater.

COSTS NO MORE than an ordinary water heater!

A. O. Smith mass-production economies give you this longer-lasting water heater for no more than you'd pay for an ordinary galvanized water heater. *Permaglas* gives you automatic hot water convenience at its best without extra cost.

See your A. O. Smith dealer—or write us for FREE illustrated booklet that tells the *inside* story of *Permaglas* superiority. A. O. Smith Corporation, Water Heater Division, Dept. SF-252, Kankakee, Illinois. Licensee in Canada: John Inglis Co., Ltd.

OTHER A. O. SMITH PRODUCTS FOR THE FARM
Liquid Gas Systems
Farm Welders
Vertical Turbine Pumps
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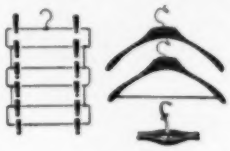
A.O.Smith
AUTOMATIC WATER HEATERS

Take care of your clothing . . .

. . . and longer-lasting, better-looking clothing will result

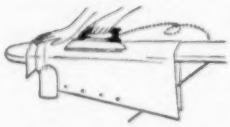
Brush dust and lint from fabrics on both the inside and outside of your garments.

Mend the small rips and tears before they become large ones, more difficult to mend.



Hang garments on proper hangers, as skirt, coat, men's suit, and pants hangers shown.

Protect clothing against perspiration by using underarm and back dress shields.



Iron with the lengthwise thread of fabric and use a firm, well-padded ironing board.

Alternate wearing of clothing—a good rest will help bring back the proper shape.

Remove spots soon after they appear, as pressing may "set" the spot permanently.

Read cleaning instructions included with garment and wash it only if so indicated.

Air entire wardrobe occasionally to aid in retaining that fresh smell and appearance.

Empty pockets after each wearing to help save pocket shape while garment is hanging.

Do your manners rate?

Answer "yes" or "no" to the following questions and see how you rate with the experts. Check your answers on page 107

1. Use a fork for eating pie a la mode, ice cream in meringue shells, and gooey cake.

2. When finished with soup or dessert, always leave the spoon resting in the dish.

3. Dip a soup spoon quietly away from you as you eat to avoid a shoveling appearance.

4. A hot beverage may be tasted with a spoon to see if it is cool enough to drink.

5. Remove seeds, pits, and bones from your mouth with a napkin or a teaspoon.

6. Chicken, a finger food, should be eaten, as above, with exaggerated hand motions.

7. Eat food cut with a knife and fork with the fork held in either right or left hand.

8. Toss your head back and tip glass way up to drain the last drop from the glass.

9. It is proper to cut a whole serving of meat before starting to eat it.

YOUR CHILD GAINS 4 WAYS

from richer protein in hot Quaker Oats

Leading University proves delicious Quaker Oats the best of all 14 leading breakfast cereals in life-giving protein!

MUSCLE
Protein is muscle food. Your youngsters need it to develop muscular strength.

POISE
Protein is nerve food. Your youngsters need it to develop a well-poised personality.

BRAIN
Protein is brain food. Your youngsters need it to help the growth and health of brain cells.

STAMINA
Protein is power food. Your youngsters need it to keep up their animal energy and fight fatigue.

You, Mother, want to rear your youngsters into fine, outstanding citizens, blooming with health! So much depends on food! So much depends on protein! Because so often the weaker people of the world are protein poor!

So mark well this proof of hot Quaker Oats' benefits to your family!

Yes, 14 nationally known breakfast cereals, both hot and cold, of all shapes and kinds, were put to a test by a leading State University. And Quaker Oats came out Number One in life-giving protein.*

And other tests prove oatmeal richer in nerve-nourishing Vitamin B_1—richer in food-energy—richer in food-iron, than any other whole-grain cereal.

No wonder doctors say the more often youngsters eat a good oatmeal breakfast, the better they grow!

And for you, Mom and Dad, there's more energy, more stamina, in nourishing oatmeal, than any other whole-grain cereal! And Quaker Oats' richer protein benefits youngsters and adults alike.

So eat hot Quaker Oats every morning. It's the best buy in cereals—less than 1¢ a serving. *And* the best cereal for your family. Remember to buy Quaker Oats. More people enjoy delicious Quaker Oats for breakfast than any other cereal in the world.

**Results published on Page 163, Vol. 16, No. 2 of "Food Research", a nationally known scientific journal.*

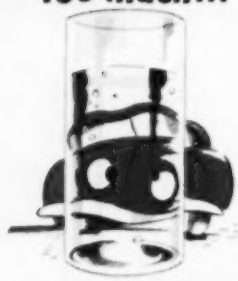
QUAKER OATS
THE GIANT OF THE CEREALS

Quaker and Mother's Oats are the same

Here's what to do
IF YOUR CAR OR TRUCK...

Smokes too much...

Drinks too much...



Spends too much...

Loafs too much...

...buy it a new set of
Sealed Power Piston Rings

Save oil, save gas, restore engine power! Re-ring now with Sealed Power Piston Rings—the finest rings money can buy! Sealed Power MD-50 Steel Oil Ring controls oil even in badly tapered and out-of-round cylinders. Sealed Power Rings are used by manufacturers of over 80% of all passenger cars and commercial engines. Write for free booklet "More Power; Less Gas; Less Oil". Sealed Power Corporation, Dept. D-2, Muskegon, Mich.

Double Ring Mileage for Late-Model Cars and Trucks

New Sealed Power KromeX Ring Sets have chrome-faced top compression ring and chrome-faced rails on oil ring for double resistance to heat, friction, corrosion, abrasion.

Sealed Power
PISTON RINGS
BEST IN NEW CARS! BEST IN OLD CARS!
©1952, Sealed Power Corp.

Double-duty sprayer

A double-action weed sprayer was used last year by Phillips Brothers, of Redwood County, Minnesota, for spraying weeds in corn. The sprayer is equipped with a boom and two hand-held hoses.

The boom is long enough to cover eight rows of corn. It is carried high enough to clear the corn, which was about 30 inches high at the time of the spraying. One nozzle opening is used between each pair of rows, the other nozzles being closed.

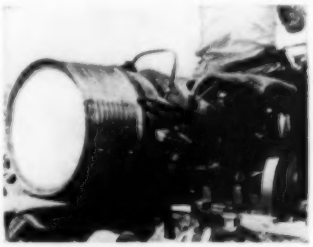
An extension, consisting of a rubber hose, is used between the boom and the nozzles. The nozzles are in pairs, branched off so as to spray the ground in the corn row. The boom is used only when the weeds are thick enough to warrant a steady spray.

For spot spraying, the hand-operated hoses are used. Each hose is operated by a man seated on a platform at the front end of the tractor. Each man can handle four rows with the hoses.

On the rear of the tractor is mounted a 50-gallon barrel for the spray material, and a pressure pump.

Canadian thistles, the principal weeds fought by this spray outfit, usually grow in patches. If the patches are thin or small, they can be covered without stopping. The tractor is stopped for larger patches. For large areas the boom is used.

Too much manpower? Maybe—but Wally Phillips figures they can cover 50 to 60 acres a day with the rig. That, of course, will vary with the number and size of thistle patches.—*J. I. Swedberg.*



Spray comes from one 50-gallon tank and feeds into both boom and hand-held hoses

More manpower is needed, but it pays to hit bad patches of weeds with extra doses

A Ford Tractor is always worth more

greater value when new—less "to boot" when you trade

Ford TRACTOR

What the Name "FORD" on a Tractor Means to You!

Low First Cost — You can save up to $500 over other two-plow tractors with comparable equipment.

Low Operating Cost — Thrifty to run; economical to maintain year after year.

Good Service Everywhere — Just call your nearby Ford Tractor dealer for prompt service.

Parts Always Available — Genuine Ford parts availability keeps all Ford products ready to go.

Modern Design and Engineering — Outstanding performance; easy to use for more different kinds of jobs.

Quality Clear Through — High quality standards, kept high by constant test and inspection.

Top Value at Trade-In Time — Even after years of use, Ford Tractors bring good prices.

To a practical farmer, a tractor is first of all *an investment.* It must cut *costs* as well as save you labor; over the years, it must stand up in *value* as well as in mechanical efficiency.

That's why, in buying a tractor, one of the *first* things to consider is one that would ordinarily be *last*—its value when the time comes to trade it in.

And that's one of the really big reasons for Ford Tractor popularity. A Ford Tractor is *always* worth more. It's worth more when new because, for all its great value features, it's still priced as much as $500 *less* than other leading two-plow tractors with comparable equipment.

It's worth more over the years because of its combination of power with economy, its speed and ease of operation and the great variety of jobs it can do.

The result, as farmers everywhere know, is that a Ford is an easy tractor to trade or sell—an exceptionally good tractor to own at trade-in time. Because, above all, it's a FORD!

Remember this next time you're in the market for a new tractor; let your nearby Ford Tractor dealer show you all that the Ford name means in a tractor.

FORD TRACTOR POWER and DEARBORN IMPLEMENTS

...the ideal working combination

Dearborn Implements are designed to team with the Ford Tractor to give you full advantages of ability to attach or remove them quickly—of built-in Ford Tractor Hydraulic Control—of the many other outstanding features of this truly modern tractor. *Let your Ford Tractor dealer demonstrate Ford Tractor value on your farm!*

DEARBORN MOTORS CORPORATION • Birmingham, Michigan

National Marketing Organization for the Ford Tractor and Dearborn Farm Equipment

COPYRIGHT 1951, DEARBORN MOTORS CORPORATION

Dearborn FARM EQUIPMENT

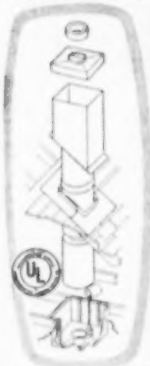
Ford Farming MEANS BETTER WORK ...MORE PRODUCTION

NEW READY BUILT FIRE-SAFE CHIMNEY

installs easy—costs less

Thousands of VAN-PACKER PACKAGED MASONRY CHIMNEYS Already in Use on Farm Homes and Buildings

Entire chimney is packaged with all parts—nothing else to buy. Even the roof flashing, rain cap and prepared cement for the joints is furnished. Saves up to 50% over brick construction. This is an all-fuel chimney for gas, oil, coal or wood heat. Saves on fuel bills with better draft... less soot.



100% FIRE-SAFE —TESTED BY UNDERWRITERS' LABORATORY

Fire-safe because wall is made of insulating vermiculite concrete with a fire-clay liner equal *in insulating value* to 24" of brick or 70" of ordinary concrete. Each Van-Packer section is joined with a permanent bonding acid-proof cement.

You Can Install A Complete Van-Packer Chimney Yourself in About 3 Hours.

Chimney goes up in sections—an average of 5 to each installation. Lightweight—only 1/10th the weight of brick construction. Easy to handle—easy to install. If you need a chimney for your home or one of your farm buildings get free literature by mailing the coupon below.

VAN-PACKER CORPORATION

Dept. 4002, 209 S. LaSalle St., Chicago 4, Ill.

Send the COUPON for Complete Details

Van-Packer Corporation
Dept. 4002
209 S. LaSalle St., Chicago 4, Illinois

Please send me your free folder on the Van-Packer Packaged Chimney and name of nearest Dealer.

Name _____

Address _____

City _____

State _____

A party they can give by themselves—a children's magic party

By Joan Carson

Kiddies, shut your eyes, twirl around three times, and you have a party. It's almost that easy to give a magic party. Here are plans so simple you can carry on alone.

Guests. How many playmates shall you ask? Eight are fine, just enough for games but not too many to plan for.

Invitations. Fold each of two sheets of white paper into four parts. Then cut along the folds so that you have eight invitations. Near the top of the paper write in ink:

THIS IS A SECRET MESSAGE TO YOU.
HOLD IT OVER A FLASHLIGHT UNTIL IT SHOWS THROUGH.

Then dip a *new* pen point in lemon juice and write this below the first message:

ABRACADABRA IS THE PASSWORD FOR YOU AT MY MAGIC PARTY NEXT MONDAY AT TWO.

Then sign your name.

Food. The morning of your party, get Mother's permission to use the kitchen and fix Fantastic Sandwiches. You'll need graham crackers, powdered sugar, a sack

of different-colored gumdrops, and a little cream. Put 2 cups of powdered sugar in a bowl and stir in 3 tablespoons of cream until the mixture is pasty.

Spread this frosting on 16 graham crackers and top with another cracker. Then frost the top of each cracker sandwich. Before the frosting on top hardens, press 5 or 6 different-colored gumdrops on each. If your party is on, or near, Valentine's Day, decorate the tops with little valentine candies. Then put these sandwiches away so they'll be all ready for the party.

Two hours before your guests come, mix the juice of 8 lemons and 1 cup of sugar in a big kettle. Add ½ teaspoon of red coloring. Then pour in 16 cups of water; stir it, and put it into the refrigerator to chill.

Games. *Magic Touch.* Choose a goal at one end of a room and make the base the other end of the room. Then choose one person to be the magician. He stands on the goal and all the players line up along the base line. The magician runs over to the line and touches one of the players, yelling "tiger," "cat," "dog," "pig," or "elephant." Then, both the magician and the person he touched get down on their hands and knees and race to the goal,

making noises like the animal named by the magician. As an example, if they are elephants, they bend over, dangle their hands in front of them like a trunk, and crawl to the goal. The one who loses the race is the magician next time.

Snake Charmer. One person is the snake charmer. All the players are snakes and run around in all directions. When the snake charmer touches a snake, the snake is enchanted and can't move. When the charmer has enchanted all the snakes, choose another charmer and start the game all over again.

Pies. Mark two goals about 30 steps apart. Choose one person to be the seller

and another to be the buyer. All the other players are pies and stand in a row halfway between the two goals. Then the seller gives each pie a name—pumpkin, apple, mince, lemon. The seller and the buyer stand at one goal. "What kind of pie do you want, Mr. Buyer?" asks Mr. Seller.

[*Turn to page 111*

"Daddy...draw me a Freedom"

"Susie thinks I'm Rembrandt.

"She's not too bad at drawing cows or moons or pumpkins. But every time she hears a new word, she expects *me* to draw it for her. She doesn't take *no* for an answer . . . so, for 'Freedom,' I drew her an American Flag and she was satisfied.

"Later I thought: how *else* can you describe a word like 'Freedom'? For instance . . .

"When a churchbell peals in America, it rings Freedom. Every time we mark a ballot, it votes for Freedom. Each paycheck I get from Republic Steel is drawn on Freedom. Our newspapers have a rustle of Freedom to them.

"Freedom is a major subject in every good American School. The auto you drive is a deluxe Freedom model. All radio and TV sets are tuned in to Freedom. And every cop pounds a beat on Freedom Street . . . in America.

"Sure, *we* like Freedom, and some governments abroad *don't*. But . . . watch out for the home-grown commies, socialists and hate-mongers among us who are trying to get us to turn our Freedoms over to the 'State.' Watch out, too, for wasteful splurging of public funds by the government . . . federal, state and local, alike. This is one sure shortcut to the loss of our personal Freedoms.

"Y'know, our fathers passed along to *us* a pretty wonderful country . . . with all the important Freedoms included. Wouldn't we be pretty poor parents if we, in turn, handed over a socialistic, bankrupt America to *our* kids?"

REPUBLIC STEEL

Republic Building, Cleveland 1, Ohio

Republic BECAME strong in a strong and free America. Republic can REMAIN strong only in an America that remains strong and free . . . an America whose Agricultural Industry is keeping our country the best fed in the world. *And through Agriculture, Republic serves America.* Steel plays an important role in the successful operation of today's busy farms. Improved steel products will make tomorrow's farming easier and more profitable. Republic, through its never-ending research and development program, is dedicated to better steels for better farming . . . and better food for the American table.

* * *

For a full color reprint of this advertisement, write Dept. C, Republic Steel, Cleveland 1, Ohio

You'll paint faster—easier-better-with

Velvet-like in smoothness—Rubber-like in toughness

NEW BRUSH MAKES PAINTING REAL FUN!—With Pittsburgh's new FLEET-WING Wall Coater, paint goes on more easily and quickly. Astonishingly light and easy to handle. Covers 7 inches in width at one stroke. Its synthetic bristles give you a coating of proper thickness and color uniformity.

CLEANS IN A JIFFY—New Wallhide rubberized Satin Finish is ideal for a home full of lively youngsters, because it can be cleaned with so little effort. Even stubborn stains such as grease, crayon, ink spots, lipstick or finger smears can be washed off quickly and easily. Repeated scrubbing will not harm its pleasing surface.

• Here's a truly remarkable interior wall paint that flows smoothly on any kind of wall surface. You can stop or start any time, without apparent laps or brush marks—touch up missed spots later—yet always be sure of a color-perfect finish. This wonderful rubberized Wallhide surface resists scuffing or marring and can be washed repeatedly without damaging its smooth, velvety sheen. Ask your Pittsburgh Paint dealer to show you the wide variety of attractive colors.

IT'S RUBBERIZED

- To go on quickly and easily
- For repeated washing and scrubbing
- To withstand wear and abuse
- For amazingly fast drying
- For non-cracking flexibility
- For long-lasting beauty and protection

Paint Right with Color Dynamics
Paint Best with Pittsburgh Paints!

• Ask your Pittsburgh Paint dealer for a free copy of our new and enlarged booklet which tells you how to use COLOR DYNAMICS in decorating your home. It explains fully how this system of painting puts color to work for you.

PITTSBURGH PAINTS
PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS
PITTSBURGH PLATE GLASS COMPANY

Egg room increases profits

More top-quality eggs for market and better hatching eggs—that's the pay-off for Kenneth Carson after building a storage room on his poultry farm at Stanley, New York. Keeping eggs under the right temperature-and-humidity conditions all the time is the most important reason Carson gives for these results. Now, while field work is at a standstill, is a good time to get ready for next summer's egg-spoiling heat. You don't have to spend a great deal of money, either.

"Trying to cool the entire cellar was almost impossible, and it was too dry," Carson recalls. To build the egg room, a 10'x11' corner section of the basement was walled off. One row of cinder blocks was used as the base for the insulation-board walls of the egg room. The spaces between the studs were filled with 4" of insulation, and 8" went into the ceiling of this egg room.

Photographs: Ward

Correct humidity and temperature in the storage room increased the quality of the eggs and also percentage of hatchability. Humidity is kept at 70 percent in room

Air compressor furnishes power for the refrigeration unit. A fan in the unit distributes air to all parts of the egg room. The fan unit is attached to the ceiling

Two coats of aluminum paint were put on all inside walls, and on the ceiling. The cinder blocks were coated with asphalt. A water pipe was run through the wall, close to the floor, with a valve on the outside. These materials for the egg room cost about $100.

A ½-hp compressor furnishes power for the refrigerating unit. A fan in the unit distributes cold air to all parts of the room. This unit is attached to the ceiling of the room.

Carson maintains a humidity of at least 70 percent in the storage room by turning water onto the floor from the small water pipe. In addition, the condensation from the refrigerating coils of the unit is caught and piped to the floor. A plugged floor drain can be unplugged to clean the room. A slatted false floor keeps the egg cases from getting wet and helps keep the room clean.

The egg-storage practices of this poultryman are based on research from the Cornell Agricultural Experiment Station. Extensive tests made in the Northeast, for example, proved that humidity exerted the greatest influence on egg quality when the temperatures in the egg-holding rooms were relatively high.

In August, when the temperature averaged 68 degrees, the lots with high humidity had 62 percent AA-quality eggs while the lots with low humidity had 50 percent AA eggs. Also, during August, when temperatures in the egg-holding rooms were high, the lots with the lowest temperatures —average was 64 degrees—had 61 percent AA-quality eggs. The lots held at an average temperature of 71 degrees showed only 51 percent AA-quality eggs. **END**

Do your manners rate?

[*From page 101*]

Give yourself 10 points for each correct answer. A score of 80 means you are a social whiz. If you scored below 60, you'd better brush up on the right and wrong of table manners.

1. Yes. Dessert forks, shaped like dinner forks but smaller, are usually provided.

2. No. Rather, set the spoon on the plate used underneath the soup or dessert dish.

3. Yes. The soup won't spatter and you will be less likely to drip it, too.

4. Yes. Looks much nicer to test it this way than to gulp and burn your tongue.

5. No. Instead, use your thumb and middle finger. And don't make an issue of it! If it is the "crumbly" kind, better use a fork.

6. No. Chicken may be eaten with the fingers, but quietly, without flourish.

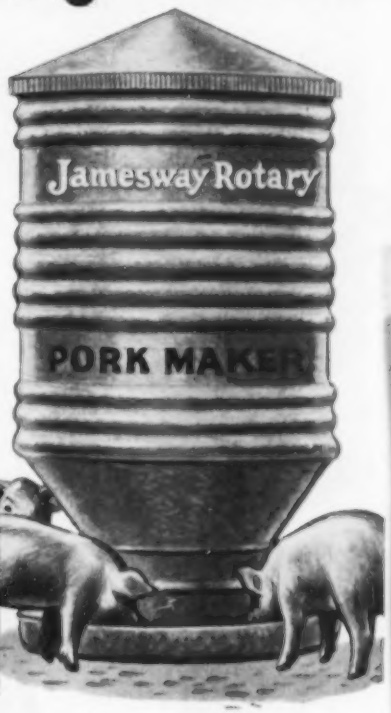
7. Yes. Hold fork with tines down in the left hand and tines up in the right hand.

8. No. Positively no! And all glasses should be held firmly but not clutched.

9. No. Cut only two or three mouthfuls at a time. A plate of cut-up food is not an appetizing sight to behold.

NEW Jamesway Rotary Hog Feeder!

6-bushel size (actual capacity) ideal for creep feeding



Here's the newest idea in precision feeding! No waste. No spilling. As the pigs root, the hopper rotates and positive agitator moves the feed down. Controlled, even flow gives pigs *all* they want to eat — and *no more!* Instead of gulping, the pigs lap up the feed, chew it better, digest it better — thus promoting faster, cheaper gains. Ideal for creep feeding or any indoor feeding when feeder is protected from the weather. Corrugated galvanized steel hopper braced with angle iron. Heavy cast iron base. Jamesway positive reversible action prevents clogging.

15-bushel (actual capacity) for large hogs

Same back-and-forth rotary motion. Positive controlled feed flow. Extra rugged construction. — Both feeders can be easily moved thru a standard hog house door opening.

For Outdoor Feeding get this "All-Weather" Jamesway Door Type Pork Maker

Defies any kind of weather. Protects feed from storms. Stands up under the roughest treatment in the feed lot or pasture. Saves work. Saves time. Gets pigs to market sooner. Heavy all metal construction. Two compartments. Positive adjustable agitator. Ten roomy feed openings with heavy gauge steel dividers, bottoms and covers. Holds 26½ bushels. Weighs 300 lbs. Built as only Jamesway builds 'em — to give years and years of service. Your Jamesway dealer is the man to see.

The Best Hog Feeder to own is a Jamesway

Fort Atkinson, Wis. Mount Joy, Pa. Los Angeles 63, Calif.

FREE

JAMES MFG. CO., Dept SF-252, Fort Atkinson, Wis.

Please send me complete information on Jamesway Pork Maker hog feeders and literature on the items I have checked below.

☐ ventilation ☐ pressure waterers
☐ tank waterers ☐ water cups ☐ pig brooders

Name _____

Town _____ R.F.D. _____

County _____ State _____

See what a jacket can do

This ➜ jumper plus blouse

5955

This jumper ➜ plus jacket

5899

6033

5899

Advance 5899. The jacket is this style story. Jumper dress plus jacket produces a nipped-waist suit. Piped collar hugs throat when buttoned or rolls softly if open. Lantern-sleeved blouse (5955) and jumper do afternoon duty; jumper alone is a party perfect.

Advance 6033. A "Sew-Easy" fashion; the dress fullness is released from an inverted tuck dart at the shoulder. The slimming, six-gore skirt was styled for the mature figure, but the lines are also good for the small woman. Bolero hangs softly from shoulder line.

For back views, see page 110

"The whole town comes to our parties!"

says Mrs. Robert L. Ewart

"It isn't hard to get the whole town in on one card party," Lila Ewart explained. "There are only 235 people in Northville, South Dakota!"

The Ewarts look forward to these gala evenings. They're both young and energetic. "And I just love to dress up," Lila confessed.

In spite of her heavy share of farm chores . . . housework . . . and their 6-month-old baby, Lila's *hands* always look dressed up for a party. "I have Jergens Lotion to thank for that!" said Lila.

"It ain't hay . . . pitching in on the field work. The baling wire and dry hay rasp my hands. But Jergens Lotion softens them beautifully. I couldn't be a day without it.

"A few hours outdoors in our bitter winters turns your skin to leather. We'd be constantly chapped if it weren't for Jergens Lotion. Bob and I use it regularly.

"Bob says I pamper our daughter – (forever smoothing her with Jergens). But with the cold outdoors and heat indoors, Jergens keeps her skin from chapping."

Jergens Lotion doesn't merely coat skin with a film of oil. It *penetrates* the upper layers and furnishes the moisture thirsty skin needs. 10¢ to $1.00, plus tax.

More women use JERGENS LOTION than any other hand care in the world!

Here's heating that makes sense and saves dollars

Iron Fireman

fuel-saving **RADIANT FIRE**

This Iron Fireman oil fired boiler is a very fast-heating unit for steam, hot water or radiant panel heating systems. It is engineered for use with the built-in Iron Fireman Radiant Vortex oil burner. Other highly efficient fuel-saving furnaces and boilers are available for oil, gas or coal firing.

The Iron Fireman radiant fire is a *fuel-saving fire*, whether you burn oil, gas or coal. Its glowing radiant heat is quickly absorbed by the interior heating surfaces of your furnace or boiler, and the resulting efficiency gives you more heat for each fuel dollar. Sensitive automatic controls maintain just the temperatures you prefer, day and night. You get wonderful home comfort at exceptionally low cost. Iron Fireman users report cash savings on fuel bills of 15% to 30%, compared with their previous heating methods. It will pay you to get full information now. There's no cost or obligation. Send coupon for booklet or phone Western Union, Operator 25.

OIL

Iron Fireman Vortex oil burner will modernize your present heating plant. Or you can install an Iron Fireman furnace or boiler with a built-in Vortex burner.

GAS

Iron Fireman radiant gas burner will convert your present heating plant to efficient gas heating. Several models of gas-fired furnace and boilers are available.

COAL

Coal-Flow stoker feeds coal from bin; no coal handling. Install in your present heating plant. Furnace and boiler units have built-in Coal-Flow stokers.

Mrs. Nora Betts, 1109 9th Street So., Nampa, Idaho, cuts fuel costs 25%.

My fuel bill is 25% smaller than when I used another fuel. It is much cleaner; it is much more convenient—easier to control the heat. I can conscientiously recommend the Iron Fireman. We welcome it in our home.

Mail coupon for booklet; or for name of nearby dealer call WESTERN UNION (by number) and ask for OPERATOR 25

IRON FIREMAN MANUFACTURING CO.
3231 West 106th Street, Cleveland 11, Ohio.

Send free booklet, "Magic of the Fuel-Saving Radiant Fire."

Name .....

Address .....

City ..... State .....

Illustrated booklet sent free

Use coupon. "Magic of the Fuel-Saving Radiant Fire," describing Iron Fireman oil, gas and coal heating equipment for warm air, steam or hot water systems.

AUTOMATIC FIRING FOR HOMES, BUILDINGS, INDUSTRIAL PLANTS

See what a jacket can do

[*From page 108*]

6033. In size 16 this style requires 3½ yards of 35-inch material for the dress, and 1⅞ yards of 35-inch material for the contrasting bolero. Both measurements are for fabrics without nap. For interfacing on the bolero, ⅞ of a yard of 25-inch sheer canvas is needed. Dress and bolero of the same fabric in size 16 require 4⅝ yards of 39-inch material without nap. Pattern comes in sizes 12 to 20. Price is 35 cents.

5955. Lantern-sleeved blouse requires 2⅜ yards of 35- or 39-inch material (without nap). Double bias-fold tape, 4⅝ yards, is needed for trimming. Blouse pattern also includes a puffed-sleeve and a sleeveless style. Pattern comes in sizes 12 to 20 and costs 35 cents.

5899. Long-sleeved jacket and jumper dress in size 14 require 3½ yards of 54-inch material without nap. Jumper alone in 39-inch material requires 3⅛ yards and the jacket requires 2⅛ yards of 35-inch material. Measurements are for fabric without nap. In sizes 12 to 20, the pattern costs 35 cents.

These three Advance Patterns are available in local stores or may be purchased direct from Successful Farming *with the easy-to-clip coupon below.*

To: Successful Farming
4702 Meredith Bldg.
Des Moines 3, Iowa.

We enclose cash or money order in the amount of $..... for the following Advance Patterns:

☐ **6033** Size .....
☐ **5955** Size .....
☐ **5899** Size .....

Name .....

Address .....

City ..... State .....

Magic party

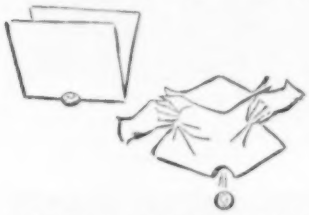
[*From page 104*]

If the buyer yells "lemon," the lemon pie must run to the goal opposite the buyer, and back, before the buyer catches him. If the pie gets caught, he is the new buyer.

Black Magic. Choose one of the guests to be your helper. Tell the others that you can do a magic trick. Ask them to decide on some object while you go away from the group. When you come back, your helper points to different objects saying, "Is it this?" You keep saying, "No!" When he points to the one they have chosen, you say, "Yes!"

Everyone will wonder how you do your magic trick. This is the secret. Tell your helper to point to some object that is black just before he points to the chosen object. That's your signal to guess the right one next.

Money Magic. Place a dime in the center of a sheet of paper. Trace around it clearly. Cut out this circle. Follow the outline exactly. Now tell everyone that you can put a nickel through this small hole without tearing the paper. Of course, they



won't believe you can do it. First, let one of your guests try. Then you do it.

Here's the secret! Fold the paper exactly as in the picture and place the nickel in the hole. Pull the sides of the paper up and together slowly and watch the coin drop through.

After the games are over, serve your refreshments. **END**

For savory pork chops

Here's a new way to add savory flavor to breaded veal or pork chops while they are cooking: Mix 1 clove of finely chopped garlic and 1 tablespoon chopped parsley with the cracker or bread crumbs you have prepared to use for coating the chops. Then cook as usual. The chops will have a subtle flavor that pleases.

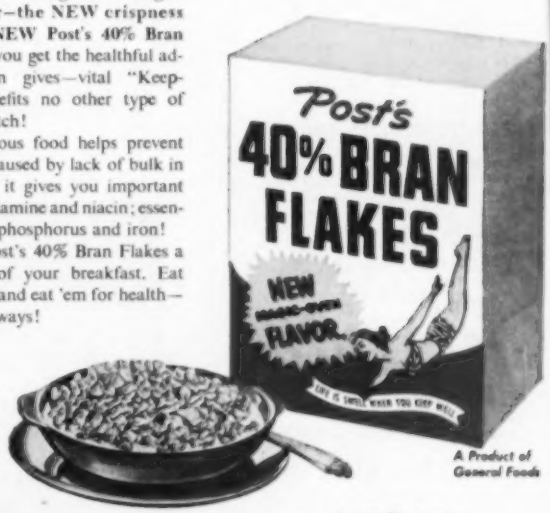
We've added a Smile to your "Health Breakfast"

Try Post's NEW "Magic-Oven" flavor—
NEW crisper flakes!
Now, you'll eat bran and LOVE it!

You'll love the exciting NEW "*Magic-Oven*" flavor—the NEW crispness now in the NEW Post's 40% Bran Flakes. And you get the healthful advantages bran gives—vital "Keep-Regular" benefits no other type of cereal can match!

This nutritious food helps prevent constipation caused by lack of bulk in the diet. And it gives you important B vitamins: thiamine and niacin; essential minerals: phosphorus and iron!

So make Post's 40% Bran Flakes a regular part of your breakfast. Eat 'em for flavor and eat 'em for health—you win both ways!

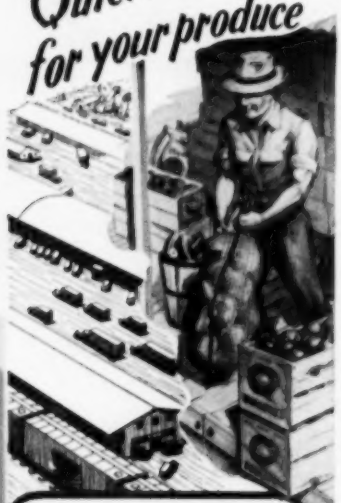


A Product of General Foods

LIFE IS SWELL WHEN YOU KEEP WELL!

FLORIDA

Quick cash for your produce



EVERY FARM NEAR A MARKET

Florida farmers get the best prices for their products through their state-operated marketing service—one of the finest in the nation.

Created for the sole purpose of furnishing farmers with centrally located points to transact their business with direct buyers on a cash basis, Florida's unique system, originally planned by the State Department of Agriculture, grew from a half million dollar volume in 1934 to a 45 million dollar volume for the year ending June, 1951.

FREE INFORMATIVE BOOKLET

It will pay you to find out more about farming opportunities in Florida. Write for this beautifully illustrated booklet today!

Fabulous **Florida**

COOL IN SUMMER · WARM IN WINTER

STATE OF FLORIDA · S104 D COMM. BLDG.
TALLAHASSEE, FLORIDA

Name _____

Farming Interest _____

Address or R.F.D. No. _____

City _____ State _____

Energy-saving ideas

These ideas from the J. Mark Robinson home near Tunkhannock, Pennsylvania, are genuine stepsavers which the Robinsons designed into their farm home

Photographs: Suter, Hedrich-Blessing

Mrs. Robinson uses large wooden pincers to reach high shelves, where she stores lightweight items that are easy to handle. Note the racks on the door for storage of her often-used items

This "kitchen food closet" has a special hinged door that provides 10-shelf storage space for canned goods. It saves many trips to storage room

Here's a concentrated rear-entrance area. Door at right comes from attached garage; partially opened door at left from outdoors. Two doors in center go to work-clothes, wrap closets. Doors opposite freezer go to another closet, office. Back hall leads to kitchen and to a larger central hall

This is laundry side of the kitchen. Pulled-out drawer on far end, next to washer, is for soiled clothes. Shelves above washer hold laundry supplies. The dryer sits on raised platform to eliminate stooping, and area beneath is for basket storage. Cart is used to transport laundry loads to ironer at left. Note additional drying space above cart for hand washings. Ceiling light moves down and out to supply good ironing light

IT TAKES 4-WHEEL-DRIVE TO BEAT BAD WEATHER

4-Wheel-Drive WILLYS STATION WAGON

This car puts an end to the worry and uncertainty of bad weather travel—4-wheel drive makes the difference. It provides the traction that masters mud and mire . . . snow and ice—takes you through when ordinary cars can't. What's more, the Willys is doubly useful. It rides six adults or, by simply lifting out the seats, you have 98 cubic feet of hauling space. Its high-compression *HURRICANE* Engine and 4-wheel-drive traction make an unbeatable combination for assured transportation—the year around. Ask your Willys dealer to demonstrate.

4-Wheel-Drive WILLYS TRUCK

There's no need for farm work to pile up! Here's the truck that gets jobs done on schedule — regardless of weather, bad roads or tough driving conditions. Its 4-wheel-drive traction pulls through mud, sand, snow and soft fields that would bring ordinary trucks to a standstill. Powered by the *HURRICANE* Engine, this "go-anywhere" 118-inch wheelbase truck (5,300 GVW) is ruggedly built on a sturdy frame. Make it a point to stop in and see your Willys dealer. He will be glad to demonstrate the 4-wheel-Drive Willys Truck.

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YOUTH GOES ON RECORD

Social life: should parents interfere?

Panel l. to r.: Bob Hicks, senior; Mary Shuman, junior; Betty Immel, junior; Fred Fiet, senior; Frances Slaymaker, senior; Leon Bonneur, junior; Don Lester, senior. Parents were Kenneth Cocking, Mrs. Leo Knox, Mrs. Wilson King, Mrs. Clarence Allen

By Henry G. Felsen

"I'm a junior this year. Why can't I pick my own friends and run my life without Dad and Mother butting in? Isn't it *my* business what I do and when I go out?"

According to this month's panel, which we recorded at Morrison, Illinois, high-school boys and girls and their parents don't always see eye to eye on such questions. Young people get along with their parents most of the time. Why, then, is this question of dating and leisure-time activities charged with emotional dynamite? (Discussing the problem were four parents and seven teen-agers, all from farms in Whiteside County, Illinois.)

One attractive 17-year-old put it this way:

Girl: The thing that makes me mad is that every time I come home from a date, my mother is sitting up. She has to know where I've been, whom I've been with, and everything we've done. She acts as though she doesn't trust me out of her sight. I resent cross-examinations. Why should I report everything I do?

Parent: That's the way my daughter feels. And yet, it isn't that I don't trust her. I've been responsible for her since she was a baby, and my responsibility doesn't end just because she's 16 and able to go out by herself. I don't want to be snoopy, but *naturally* I'm interested in what she does. I want to be sure she's in good company.

Girl: That's just what I mean! When we're old enough to go out by ourselves, we're old enough to choose our own friends.

Parent: When we know our children are getting in with a bad crowd, or running around with people whose reputations aren't too good, we've got to step in. Some of these unchaperoned parties, for instance, where the parents aren't home—you can't help but worry.

Girl: Maybe so, but if we have friends we like, I think we'd keep on seeing them no matter what our folks said. Maybe that's one of the things we have to find out for ourselves—which people to stick with, and which ones to give up. But one thing, if I'm told to keep away from some person, my first reaction is to pal around with him, just to show my independence.

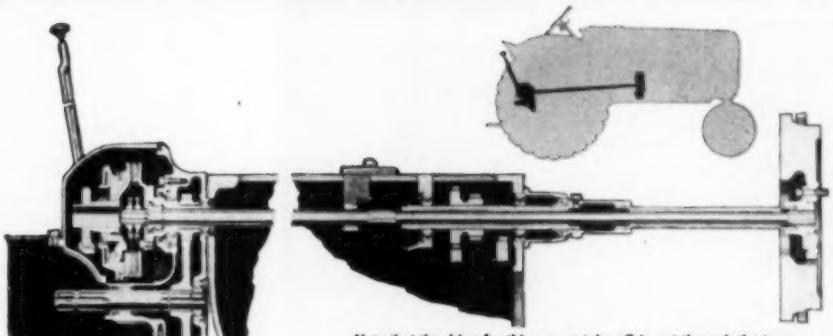
Parent: It's hard to stay close to our children as they grow up. But they should know parents have their best interests at heart.

Boy: That's just it. They're too interested! They look on us as responsibilities, not people. That's why it's easier to confide in your friends than a parent. Your friends don't expect you to be perfect, but your parents do.

Is there a middle ground to this business of parental supervision?

Boy: I think so. Sometimes parents *can* help. I know when I started to high school I wanted to go out for football. But I had a dairy project, and there wasn't time for both. I asked my dad what to do, and he left it up to me. My dairy project was worth about $2,000 then, and that meant more to me than being on the team. I forgot about football and contin-

[*Turn to page 116*



Note that the drive for this power take-off is not through the transmission gears, but direct from flywheel through its own separate clutch and reduction gear. More power at the take-off and constant speed regardless of gear in which tractor is driven enable you to better meet varying field conditions.

the BIG Feature of a BIG Tractor!

Sure, the Oliver "77" and "88" are BIG tractors. Farmers have long known that an Oliver has what it takes for the toughest of farm jobs.

But these tractors also have one BIG additional feature which makes any tractor not having it—obsolete. This BIG feature is the Direct Drive Power Take-Off. This additional feature alone is sufficient reason for your next tractor being an Oliver.

Direct Drive Power Take-Off means that the drive for Combine, Corn Picker or Sprayer is independent of the tractor transmission or clutch. When you change gears, the power take-off speed does not change nor is power interrupted. A separate clutch for this power take-off enables you to start or stop operation of the driven machine quickly and conveniently.

Why content yourself with any tractor not having this BIG feature? The Direct Drive Power Take-Off is just more proof that "you get more for your dollar from Oliver." The Oliver Corporation, 400 W. Madison St., Chicago 6, Ill.

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The entire field above was planted with high-quality alfalfa seed in 1950. All the seed except for the strip through the middle was treated with "Arasan" seed disinfectant. This 1951 picture shows the difference.

Like earlier research, and like this farm example, 72 farm tests across the nation in 1951 have shown that "Arasan" seed treatment for grass and legume seed makes thicker, stronger, better-growing hay and pasture crops by control of seed rot and damping-off.

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"My certified alfalfa treated with 'Arasan' came up far better and heavier than untreated. I can't afford to take a chance on a poor stand. I'll treat all alfalfa seed from now on."

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B. E. Bergman
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Be sure all the seed you plant is treated with a Du Pont seed disinfectant

Use "Arasan" for grass, legumes and corn. For small grains, use "Ceresan," recommended and proved for over 20 years as the yield-improving seed treatment for wheat, oats, barley, rye and flax. Buy treated seed, or have your own seed treated when it's cleaned.

With all chemicals always follow directions for application. Where warning statements on use of products are given, read them carefully.

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BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

ARASAN®
Seed Disinfectant and Protectant

Social life: should parents interfere?

[*From page 114*]

ued working with my herd. The important thing is that Dad didn't try to decide for me. He helped me see what the problem was, and then let me make my own choice. That made me feel independent.

Parent: He could do that because you acted like a man. But how many young people approach their parents the way you did and give them a chance to help with a problem?

Boy: How many parents would *let* us make our own decision? Usually when you ask your parents about something, they lay down the law. So why should you let them in on your affairs?

Parent: A great many youngsters need help in making a decision. You can't give them a choice because they want to do everything. They haven't learned to pick those activities which they really enjoy and will get the most from.

Parent: Yes, and there's a health factor involved. A boy or girl can't go to school all day, take part in a dozen different activities after school, and then go out every night, and stay healthy. Most young people don't know when or how to quit.

Boy: Yeah, that's a problem. You come home after school and do your chores; then there's always a meeting or something you have to go to after supper. Student Council, F.F.A., Young People's—each organization acts as though you don't have another thing to do with your time. Then there's stuff like school plays, band, basketball, and dances that you want to go to. Where can you draw the line? Going out all the time isn't *all* our fault. Lots of times I'd like to stay home.

Parent: Perhaps that's where parents can help figure out a good balance.

Boy: Just so they don't tell us to cut out the ones that are the most fun.

The discussion then moved to the question of going steady. Both parents and teen-agers were concerned about the custom.

Parent: Too many of the high-school kids go steady around here and they're far too young to get serious. Last year in the senior class of our high school there were 10 diamonds! Many of these were from older fellows. And with the boys going into service now, many rush into marriage. I'm afraid they're going to regret it later.

SUCCESSFUL FARMING

"She'll remember me. I'm the boy who danced every dance with her last night."

"When did the cat get married?"

Girl: We'd like to date around more, but you can't do it. Everyone goes steady. If you date a lot of fellows, you find yourself getting a bad reputation. I think a lot of girls would rather not go steady, but the boys seem to want it that way. What are *we* supposed to do?

Boy: Well, if you like a girl, you want to go with her, and if you're going with her, you don't want her running around with other guys, I guess. Then too, if you're going steady, you don't worry about where you're going to get a date when you want to go out. The girls seem to like that too, as far as I can tell.

Girl: There doesn't seem to be any easy answer. When you go steady, boys are so possessive they get jealous if so much as look at another boy. But if you don't go steady, you miss out on everything. You're never sure of a date.

Steady or not, how many nights a week should teen-agers go out?

Boy: I could go out every night of the week if I wanted to, and I can always get the car. But I think three or four nights are enough, plus any special events that come up, like football games and such.

Girl: Three nights a week are enough. After all, a girl needs some time for things like washing her hair, and perhaps baby sitting and studying. I'd rather have my folks set rules on what nights I can go out. Then I don't have to battle every time I want to do something.

Girl: I think they should make exceptions *once in a while*, though. They should let us stay up late if the rest of the kids do it. If our folks gave us good training when we were younger, we're not going to do anything wrong now.

The parents weren't so sure.

Parent: It's not a question of not trusting you, but when you're up late at night and you're tired, you are more likely to have an accident on the highway. Too, it's more difficult to think rationally when you're tired.

The boys had little to say about this. They seemed to have more freedom than the girls as to how often they went out and what time they got in.

Boy: My folks don't care what time I come in, but one thing is understood. I have to get up and do chores the next morning. If I can't, I hear about it. When you know you have to get up and milk, you're not too likely to stay up very late many nights in a row. Besides, if the girls have to be in early, there's nothing to stay up for. [*Turn to page 118*

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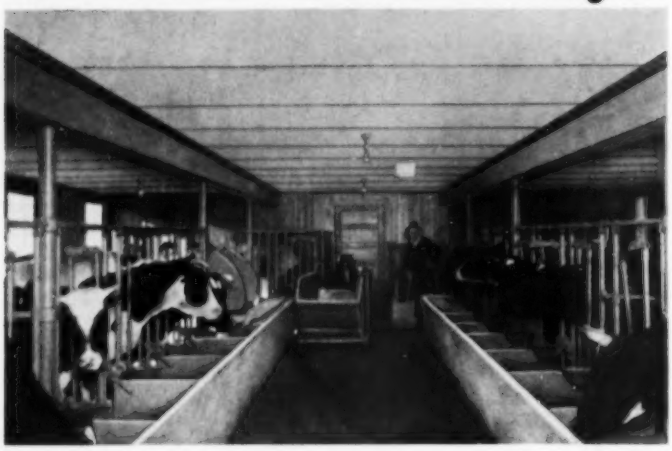

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Insist on Genuine CELOTEX Building Products

REG. U. S. PAT. OFF.

Social life: should parents interfere?

[*From page 117*]

How can parents and teen-agers work out these problems of leisure time, dates, companions, and attitudes?

Parent: It seems to me teen-agers wouldn't be so conscious of parents' interfering in their activities if they realized we have worries, too. In our home we talk problems over frankly with our boys. I think it helps mature them and we trust and understand each other. Parents must fight that overprotective feeling.

Boy: What it all comes down to is that some parents tell us things in a way that damages our self-respect. I think if parents would try to remember how they felt when they were kids, and do things in a way that makes us feel more responsible, rather than just boss, we'd make fewer mistakes and go to them more for advice. I always ask my folks before I make a decision because I know they won't try to force me to do anything. They'll help me see all the things that have to be considered, then let me make my own decisions.

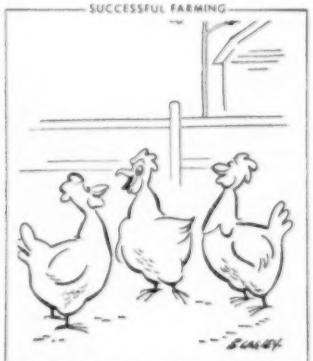
In the summing up, there was general agreement on this: In every family where there are teen-agers, there are the problems of how much outside activity, age at which dating should start, use of the family car, how much parents should have to say about the choice of friends, and all the side questions that arise from these problems.

The best answer to these problems is to be found not in tackling them one at a time as they come up, but in parents' and teen-agers' finding ways to get together to talk over the whole problem of leisure activity and home "rules."

As one parent put it—

"When parents try to go along with the ideas of the younger generation, and when children learn to appreciate what their parents have learned from experience, all these little differences will solve themselves." **END**

Each month Successful Farming will report an actual panel discussion of young people on the knotty questions and problems which confront today's farm youth. If you would like us to lead a discussion at a meeting of your youth group, write and tell us your question. We can't work in all your ideas, but we'll get around to many of them.—Editors

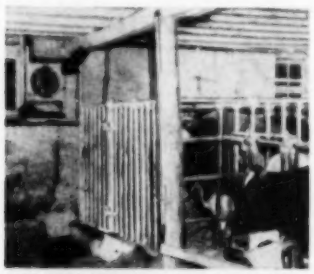


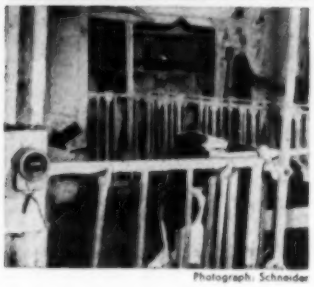
"Isn't that interesting; Martha here was an Easter egg!"

Dairy

Cows' heat warms calf pens

A thermostatically controlled fan (top picture) in the calf and bull pen pulls double duty for Craig Beane, dairyman in Jefferson County, Wisconsin. Besides keeping moisture in the pens down and the walls free from frost, the fan draws warm air into the calf pen from the stanchion barn where the cows are held. A large door between stanchion barn and the calf pen allows free air circulation.





Photograph: Schneider

The thermostat (bottom picture) is located on a post in the center of the calf pen. The controls are set at about 50 degrees during the winter, 60 degrees during the summer. Note the large door and milk cows in the background.

Cows produce milk without calving

Treatment of dairy cows with hormones may soon save many nonbreeder cows by converting them into profitable dairy animals. Initial success with two hormones, progesterone and diethylstilbestrol, has opened the way to increased studies at the Michigan Agricultural Experiment Station.

Two sterile Guernsey heifers were treated with the two hormones. A third hormone, thyroprotein, was also used. Tablets of the hormones were implanted in the shoulders of these animals which had never calved. One heifer began producing milk on the sixty-fourth day, the other on the ninety-seventh day.

Without calving, both heifers produced milk for more than 300 days; both produced more than 6,000 pounds of milk and over 320 pounds of butterfat. These amounts were about equal to those of normal, first-calf Guernsey heifers.

Another approach was also studied by the scientists. Would it be possible to bring into milk production older cows

[Turn to page 120

GET INFECTED ANIMALS BACK TO NORMAL

The quick, low-cost way

Dependable, Fast-acting

SULMET*

SULFAMETHAZINE *Lederle*

Time-Proved Control for

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Fast-acting, low-cost SULMET Sulfamethazine *Lederle* gives spectacular results when used promptly against a great number of bacterial diseases of farm animals.

Those who have seen sick animals respond to SULMET Sulfamethazine are impressed by the speed of its effective action. Often one treatment brings animals back to normal feeding. Shortening the period of sickness means little loss of weight and less stunting. Stockmen who are quick to detect disease and prompt to use SULMET restore infected animals to normal condition rapidly.

Time-proved SULMET Sulfamethazine *Lederle* is available in six dosage forms: POWDER, TABLETS, OBLETS*, TINTED EMULSION (for pink eye bacterial infections), SOLUTION 12.5% (for use as a drench if desired), and INJECTABLE SOLUTION (by, or on the prescription of, a veterinarian).

Your veterinarian is your dependable ally in the constant war against disease. Consult him for the most effective management practices and disease-control procedures to meet your individual needs.

Free literature gladly sent upon request.

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Animal Industry Section

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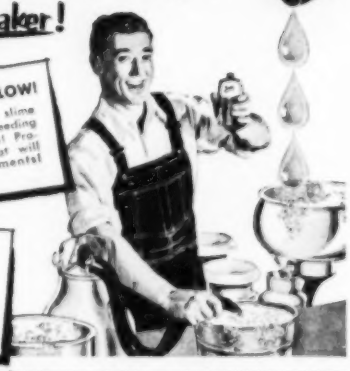
CLEANS DAIRY EQUIPMENT TWICE AS FAST AS SOAP POWDERS ... SAVES UP TO ½ THE COST in hardest water!

JOY Procter & Gamble's Miracle Concentrated Liquid Sudsmaker!



KEEPS BACTERIA COUNT LOW!
JOY washes away all milk slime and grease—discourages breeding places for harmful bacteria! Promotes a bacteria count that will pass any State's requirements!

PREVENTS PROFIT-STEALING MILKSTONE!
No soap flakes, granules, or powders in the world can match JOY's ability to keep milkstone from forming. And remember—just this milkstone can rob you of 1/5 of the valuable butterfat you deserve!

Already *dissolved*—gives *instant* suds! . . . No caking as with packaged soaps! . . . No mess when you splash, no more soggy soap cartons to fall apart! No spilled powders to clean up afterwards! . . . No waste from guesswork, because every drop is measured accurately!

Yes, here's the newest way to clean cream separators, milking machines, cans, pails, and strainers *cleaner, faster, more economically* than soap powders in hardest water!

CLEAN DAIRY EQUIPMENT THE JOY WAY!

Cleaning Milking Machines—After each milking, flush unit with 1 pail of hot Joy solution. Use 2 capfuls of Joy to a pail of water.

When all Joy solution is drawn into milk pail, remove rubber seal from pail head and wash seal and pail head in suds with a soft bottle brush. Then brush outside of unit with Joy suds. Shake solution around inside milk pail to complete washing; then empty pail.

Reassemble unit and flush-rinse with very hot water. Then hang milk pail, pail head, and teat cups up to dry. Just before next milking, flush out milker with clear, hot water.

Cleaning Cans, Pails, Strainers—wash in hot Joy solution with soft brush. Use 1-2 capfuls of Joy to a pail of water.

Rinse with very hot water, allow to drain dry. Everything will be spotlessly clean.

Remember, too!
JOY MAKES YOUR DISHES GO FROM GREASE TO SHINE IN HALF THE TIME!

Dairy

[*From page 119*]

which fail to settle? Pellets of progesterone and diethylstilbestrol were implanted in two 4-year-old, nonbreeder Holsteins. Production started when the pellets were removed. One reached a peak of 80 pounds a day, the other 45 pounds a day.

The cow that went to 80 pounds produced 298 pounds of butterfat during the first 4 months of lactation. The other produced 177 pounds of butterfat during the same period.

After 4 months of milking, the first cow was still giving 50 pounds daily, the second 35 pounds daily.

A lot of research is yet to be done, the Michigan scientists report. It may be some time before the average dairy farmer can use this treatment in his herd.

Roughage cuts calf losses

Dairy calves are being raised at the Ohio Experiment Station with little trouble from the common calfhood diseases such as diarrhea. Colostrum is fed for 3 days and then the calves are switched to whole milk which is pail-fed from 7 to 9 weeks. A mixture of 30 pounds of good alfalfa hay, 30 pounds of clover-timothy mixture, and 40 pounds of grain is ground together and fed free-choice when milk feeding starts.

By the time milk feeding is discontinued, calves are full-fed on this grain and hay mixture. When calves are 12 weeks old, mixture is changed from 3 parts hay and 2 of grain to 2 parts hay and 1 part grain. The calves are also given cud inoculations at 7, 14, 21, and 28 days of age.

Double-duty nose ring

Robert Priegnitz, Jefferson County, Wisconsin, used a bull ring with a light chain attached to control two bad habits of the cow pictured below. Last winter the animal started sucking other cows as well as herself. An ordinary bull ring broke this vice without too much trouble.

However, when she was turned out on pasture in the spring, she started jumping low electric fences. Priegnitz broke her of this habit by hanging a 4-foot length of

Bailey

light chain on the ring. When the chain touched the "hot" wire, she got a shock. The cow was allowed to wear the chain for a few days. Then, it was removed from the ring.—*J. W. B., Wisconsin.*

The cheapest corn

[*From page 40*]

to seed; grows on widest soil conditions (as long as they are not acid); is not a particularly good feed crop but can be used in emergencies (it's a temptation to pasture other legumes into the ground before plowing them under); and is a biennial, making for a better cover crop.

Weevil is big problem

Unfortunately, all arguments are not in sweet clover's favor. It has several faults which have sent farmers and crops men in search of legumes to supplement and replace it. The main problem is the sweet-clover weevil which each year takes a big toll of the young seedlings soon after they sprout.

Weevil-damaged leaves will have numerous smooth, round bites out of the edges. The small, gray, possum-playing rascals have been known to consume the whole seeding before it gets an inch tall. Resistant varieties may eventually be developed, but for now we will have to rely on control methods—which we will discuss later.

Sweet clover is the most sensitive to acid soil of any of our common legumes. A soil test will tell you whether you can grow it or not.

But in spite of these disadvantages, which may not exist in your case, biennial sweet clover is your first choice as a green manure. White or yellow flowering is equally good, though yellow is considered more drouth-resistant. White is better if there is any chance of needing the crop for hay or pasture.

Alfalfa-Ladino good mixture

If you live in an area where weevils or winter heaving is sure to knock you out, use a mixture of 15 pounds of southern alfalfa (it's cheaper) and half a pound of Ladino. The southern alfalfa usually winterkills in the north two-thirds of the Cornbelt but makes good growth the first year. Ladino, too, is a strong producer of nitrogen. It will come on in the spring to make more growth and provide cover.

If your soil is too acid, use a red clover-timothy or red clover-Ladino mixture. Even they do better on a sweet soil, so it should be your signal to do some liming before another seeding year.

Sow your green-manure crop in winter grain in February, March, or April—depending on the year and how far north you are. Freezing and thawing will work the seed into the ground.

[*Turn to page 122*

SUCCESSFUL FARMING

"I'll cross that bridge when I come to it."

GREATER YIELDS...
ADDED PROFITS WITH
Energized Vertagreen®

There's more growing power in every ton of energized Vertagreen because there's more plant food in every bag. It's this extra plant food—extra growing power—that makes feeding Vertagreen plain good business. With Vertagreen you get bigger yields, higher-quality crops and extra profits. So Vertagreen actually costs you less in the long run. Thousands of farmers across the nation have proved it. Get energized Vertagreen right away and see the difference it can make in your crops and profits. It's available in a special analysis for crops and soils in your section.

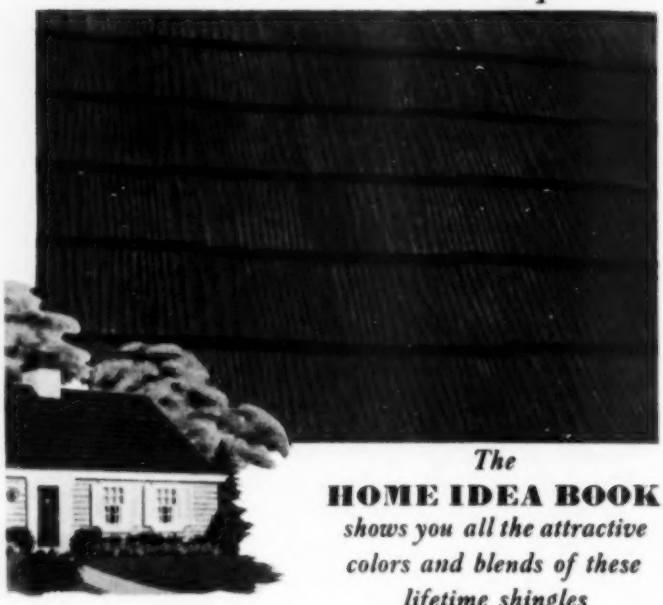
ORDER EARLY!

Prompt delivery may be difficult on late orders, and you want to be sure your Vertagreen is on hand when you need it!

ARMOUR FERTILIZER WORKS

American Colonial

The most beautiful popular-priced Asbestos Roof Johns-Manville ever developed



The HOME IDEA BOOK shows you all the attractive colors and blends of these lifetime shingles

One section of *The Home Idea Book* is devoted to American Colonial, the attractive Asbestos Roof Shingles with all the charm of weathered wood plus the permanence of stone. It shows their wide variety of pleasing colors and their rich, striking texture. It points out that they have all the qualities that make it possible to say "in 40 years not one Johns-Manville Asbestos Shingle has ever burned or worn out!"

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64 pages in full color

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Enclosed find 25¢ in coin or stamps, for which send copy of your new "HOME IDEA Book."

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("Home Idea Book" not available for Canadian distribution)

The cheapest corn

[*From page 121*]

Be sure you inoculate the seed, or your corn bonus will be smaller. In spring grains, seed as you would a hay crop.

Spray for weevils

If the pesty weevil shows up when your seeding gets going, watch it closely. Dr. G. C. Decker of the Illinois Natural History Survey says to spray when half the leaf surface has been consumed. If the plants are very small, this may be too late. Look at it every day if you're in doubt. If the clover is losing ground, apply a pound to a pound and a half of actual DDT per acre in a spray or dust. Use the larger amount if the insects have clipped away most of the leaf surface.

After you harvest the small grain, you can't do much more to sweet clover. Clipping will benefit other legumes if weeds are putting up too much competition.

If your soil is one which must be fall-plowed, go ahead and turn it under. Spring growth doesn't add much nitrogen. It just moves from root to top.

Plow when 6 inches tall

In spring, plow when the plants are 6 to 8 inches tall. Plowed earlier, the roots of sweet clover are hard to kill; plowed later, the lush spring growth decays too quickly. Nitrogen leaches away when it is released earlier in the season than the small corn plant can take it up.

Another vote in favor of earlier plowing: Tall top growth transpires lots of water which the corn may need later. Less moisture is lost from bare ground. Go ahead and prepare your seedbed for corn as you ordinarily would.

When you're harvesting that crop of corn it helped make, try to recall how the field yielded the previous time it was in corn. You're in for a profitable surprise.

Next month—"Make Corn Your Nurse Crop."

You can count on this friend

SUCCESSFUL FARMING FIELD SERVICE MAN

The SUCCESSFUL FARMING FIELD SERVICE MAN is a friend that you can rely on.

Many farmers look forward to his visit for they know he can keep them supplied with valuable information on farming as developed by agricultural extension stations, colleges, and farmers everywhere.

Shortages'll haunt you... if you don't help out

That old spook, "Shortages," might put the whammy on you the next time you want to buy a reaper or a refrigerator, a combine or a car. The reason? Not enough steel.

Oh, sure, the mills are rolling out more steel than ever before. But it's still not enough to meet all defense and civilian needs. To produce more, the steel mills and foundries need more iron and steel scrap—NOW!

You see, one pound of scrap is needed to make two pounds of steel for finished products.

Look at your own farm. Lots of old or obsolete equipment and metal lying around, isn't there? Okay, then help put the hex on that "Shortages" spook—for the nation . . . for yourself!

Contact your scrap dealer today. Get your scrap to him. He will move it to the mills and foundries. Do it NOW!

Copper and lead scrap are needed, too!

This advertisement is a contribution in the national interest by

Keystone Steel & Wire Company

Peoria 7, Illinois

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Work-Free Heat Once you set your thermostat, you never need to lift a finger to keep your home at exactly the temperature you want. Goodbye heating chores!

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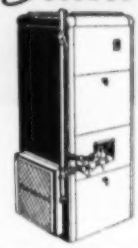
AMERICA'S BIGGEST DOLLAR'S WORTH *of Automatic Heating Value!*

Make Your Home Life EASIER, HEALTHIER, HAPPIER with Years-Ahead

TIMKEN *Silent Automatic* HEAT!



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Hundreds Of Thousands Of Satisfied Users Prove Timken Silent Automatic Your Best Buy!

The world's best salesmen for Timken Silent Automatic Heat are the hundreds of thousands of thrifty folks who own and enjoy this finest of all modern home heating equipment!

Lots of these satisfied users are farm people—perhaps neighbors of yours—and they know what a wealth of comfort and convenience this labor-saving equipment brings to the farm home.

Every detail of design is the result of the heating industry's most advanced engineering. Materials are of finest quality throughout. All workmanship is of the best. Timken Silent Automatic prices are truly reasonable, and you'll be amazed and pleased to learn how much you can save on fuel oil costs!

Install a Timken Silent Automatic heating unit in *your* home! Phone your nearest dealer *today* for a free heating survey and installation estimate!

Reliable Heat You can depend on this *proved* equipment, through all the heating seasons to come. Leave the house as long as you like, without a worry!

Steady Heat No more ups and downs of home temperature with Timken Silent Automatic Heat! Enjoy a constant, steady home climate all season long!

Modern Heat Here is the highest expression of modern heating science—backed by more than 25 years of Timken Silent Automatic engineering experience!

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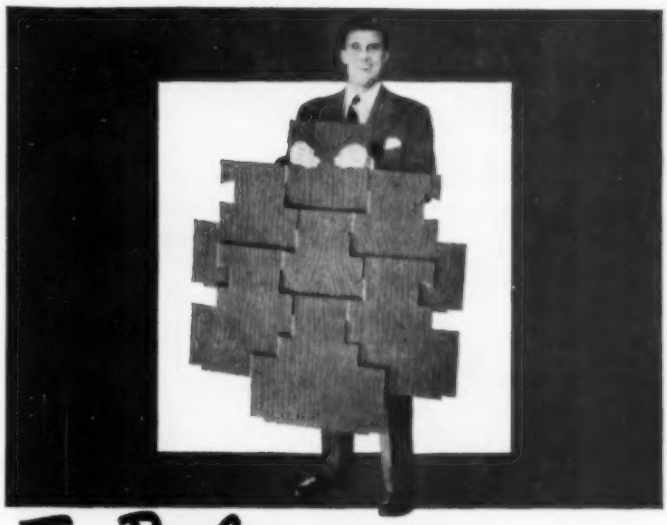

The Roof THAT OUT-PUZZLES THE WEATHER

This jig-saw puzzle has paid off handsomely for thousands of farmers . . . every time there's been a heavy windstorm . . . because this highly practical puzzle solves the ever-present problem of shingle damage due to high winds.

Here you see a group of seven self-locking Ruberoid Tite-On Shingles. There are no nails or fasteners of any kind holding them together . . . and this is precisely the way they interlock on the roof. In addition, each shingle is nailed to the roof deck at four points . . . as a result they have never blown up, even in hurricane winds up to 120 miles per hour. In 18 years of use, weathering storms all over the country, not a single case of windstorm damage to Tite-On roofs has been reported.

Ruberoid Tite-On Shingles are equally well adapted for new roofs or re-roofing over old shingles . . . adding beauty, fire-resistance and long-lasting protection. Enjoy maintenance-free roof security on your farm, too. Fill in and mail the coupon below for complete information about—

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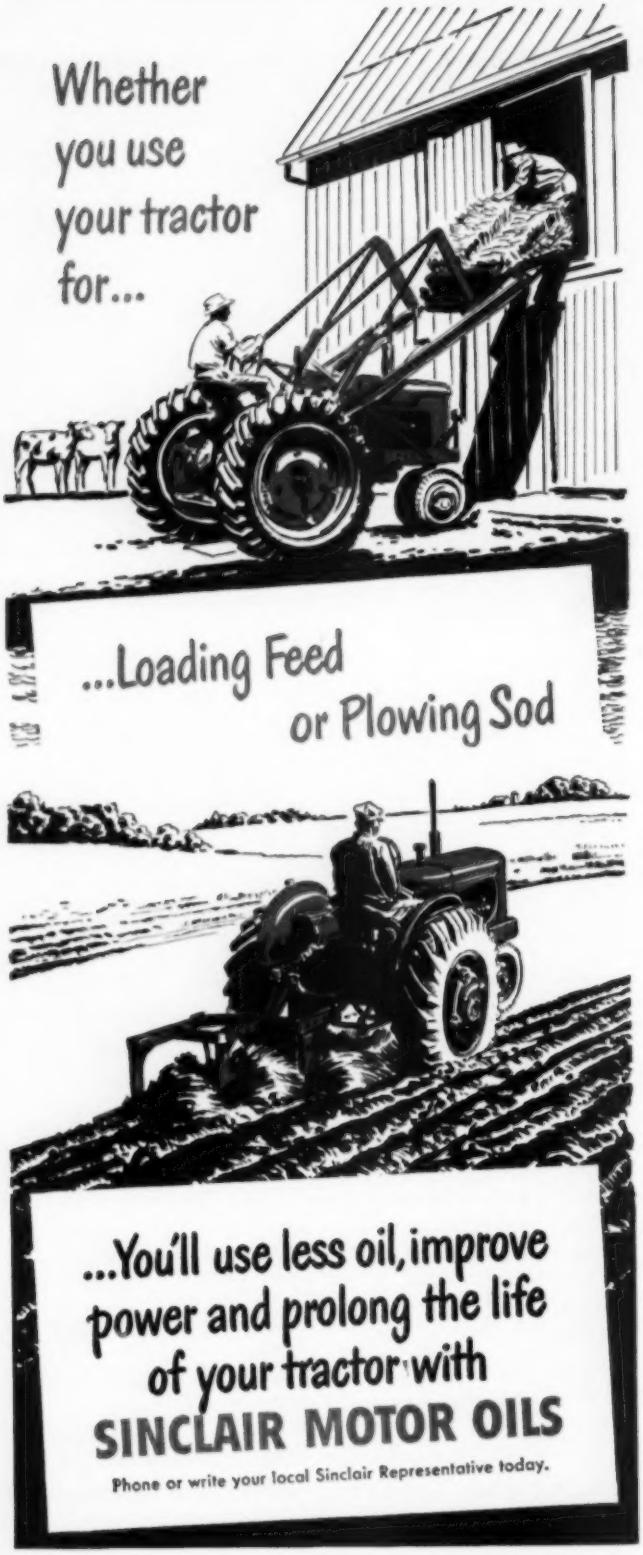
ASPHALT AND ASBESTOS BUILDING MATERIALS



How to have stand-by electrical power

[*From page 46*]

generators. Some bought generators larger than they needed to operate their essential equipment; they didn't know what size to buy. One man made the opposite mistake and purchased a 115-volt generator although most of his essential motors operated on 230 volts.

New York farmers find they should purchase generators that produce 230-volt, single-phase, 60-cycle, alternating current. This allows them to use all of their electrical equipment as usual, limited only by the size of the generator. The following table gives the running wattage and amperage for standard-size motors. The amperes are given on the motor name plate, but as generators are rated in terms of watts, this is the easiest way to determine your generator size:

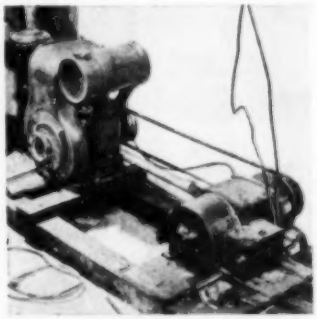
Running requirements of 60-cycle, single-phase induction motors

Motor hp	Full load Amperes 115	Full load Amperes 230	Watts
1/8	2.82	*	175
1/6	3.14	*	215
1/4	4.03	2.01	300
1/3	5.14	2.57	400
1/2	7.21	3.6	575
3/4	**	5.2	835
1	**	6.5	1,000

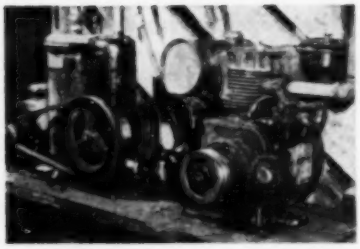
For each additional hp, 1,000 watts should be added.
*** Motors this size are generally built for only 115 volts.**
****All motors this large should be connected to 230 volts.**

The problem doesn't end, however, with this determination, because you must have about three times as much power for a second or two when you first start a motor as you do to run it when it has reached full speed. You must remember this point when you make a list of essential motors that must be run simultaneously but will not all be started at once. If you multiply the figures shown in the table by three, you will get the approximate power needed to start most motors. When several motors are to be run all at the same time, start the largest motors first.

Most generators have temporary overload starting capacity. This will vary, but if you do not have the manufacturer's recommendations, it will be safe to assume



110-volt generator, either army surplus or new, instead of a complete light plant, will furnish power for farm in emergencies



Emergency power to operate milking machine is furnished by a gasoline engine with the pulley in line with the compressor

that you can allow 25 percent above the generator's rating. Be sure your generator has an overload protective device to prevent damage in case of excessive overload.

Many farmers will find that their essential needs are met with a 3,000-watt (3-kw) generator. This will enable them to run a 1-hp motor on their milker, a 1-hp motor on a deep-well pump, and a ½-hp motor on a milk cooler all at the same time if the largest motors are started first. After all the motors are running, there will be 400 watts available for lighting.

Raymond Donald at Moravia, New York, has a word of caution about hooking up the generator. He says, "Be sure to use a double-throw switch." When the switch is in the "up" position, current is taken from the power line, and when it is down, current from the emergency generator flows through the regular circuit. His 3-kw generator is hooked to the power system with such a switch. This is a 60-ampere switch that is large enough to carry the maximum current that his service is built to deliver.

Raymond is a competent electrician himself and he didn't need to have the authorities tell him the necessity of having this switch for protection. When I asked Raymond about this he replied:

"I don't want the current from my generator to charge the power line and maybe kill some of the linemen, or have the current from the power line come back on and burn out my generator. It would be all right if I were always here to start it, but my wife or son might forget to disconnect the service connection. This double-throw switch eliminates all the chances of making mistakes."

Robert Ball at Candor, New York, has solved his problem of emergency power by fixing the back of a panel delivery truck so the generator can be bolted down there in case of an outage. The truck is then backed up to an outside cellar window and connected to the electric service by a cable leading to the double-throw switch mounted on the service panel in the cellar. He then drives his tractor up to the back of the truck and belts it to the generator.

This method protects the generator against bad weather and also makes it possible to use it elsewhere. Next spring Bob intends to take the generator out to his poultry range and hook it up to an electric water pump that develops 200 pounds of pressure. That's enough really to scrub out the equipment.

This idea of making a generator portable also has the advantage of allowing you to use several small double-throw

[*Turn to page 128*

"I've used AMERICAN FENCE for over 30 years—and it's still holding tight."

—EMIL OSMUNDSON, DELAVAN, MINN.

"There's nothing like Woven Wire Fence and AMERICAN tops 'em all."

—HOMER CARON, BLOOMER, WISCONSIN

"AMERICAN FENCE stands up well in this country. I buy about 1000 to 2000 rods at a time. It has given me real service."

—RAY S. JARRETT, BRITTON, SOUTH DAKOTA

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● Satisfied users are the best salesmen for American Fence. Some like it because it lasts a long time. Others prefer it because it saves them weeks of work and puts an end to fencing troubles . . . or it can be moved without damage.

Whatever their reasons, they agree that American Fence does the job they want it to do. That's why American Fence is the farmer's favorite.

See your U·S·S American Fence dealer. He also handles poultry fence, barbed wire and other American Steel and Wire Company products.

6 favorite features of American Fence

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Please send me your booklet, "Fencing—A Production Tool to Increase Farm Profits."

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ORIGINATED IN MINN

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Also made to supplement soil nutrients, BRIMM is another specialized crop maker. Made in plants located in various sections of the country, BRIMM contains chemically hitched growth elements balanced to meet the needs of special crops and soils. It is great for truck crops in the East, Southwest and Pacific areas. For cotton and corn in the South, there is no finer plant food than BRIMM.

Both BLENN and BRIMM are made by Swift's New Process. This means they have superior mechanical condition. They store well... distribute through your machines uniformly . . . no caking, lumping, or bridging . . . and, most important, the chemically hitched, *fortified* growth elements feed your crops evenly for uniform, high yields.

Buy at the sign of the Red Steer

RED STEER comes in many analyses to meet the needs of your crops and soil. Ask your Authorized Swift Agent or dealer about Swift's Red Steer, the reliable plant food for general crops. Also, Red Steer Pasture Special.

Swift's
PLANT FOOD SERVICE
RED STEER

How to have stand-by electrical power

[*From page 127*]

switches that may be cheaper than one main switch. If you have several branch circuits you wish to supply with power at different times, you could mount the generator on the back or front of a tractor and use it on each circuit separately.

In general, the attitude of the farmers may be shown by H. L. Creal of Homer, New York: "Last year in November we were without power for only 24 hours. It was long enough, however, for our 70 cows to drop 6 or 7 cans of milk. One hired man was kicked and had his leg broken because the cows weren't used to being milked by hand. We were without

> **Some persons cause happiness wherever they go; others whenever they go.**
>
> —*Anonymous*

water because there is no substitute for electricity to operate our jet water pump. This supplies water for two houses and both barns, so we were out of water everywhere. We had no way to cool the milk.

"But with the generator we now have, we don't have to worry. We can start our tractor, belt it to the generator, and our 'electric hired man' is ready to go to work."

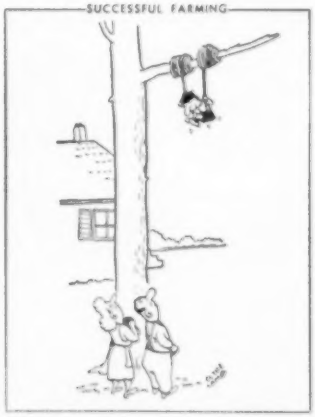
Professor Turner and his Cornell associates have recommended the following steps in case of power failure:

1. Check the fuses and wire connections to make sure the power has actually failed.

2. Call the power company. They may not be aware of the interruption if it is local trouble.

3. Turn off all electrical equipment, especially motors. There may be a low-voltage condition when service is resumed and this may burn out your motors if they are not protected by thermal overload switches.

Professor Turner sums up his feeling on the subject by saying, "A stand-by generator is just so much insurance for a farmer. He pays his other insurance premiums, but never expects to use them. He knows that there will always be power interruptions, and stand-by power facilities will be his insurance that the farm business will operate as usual." **END**



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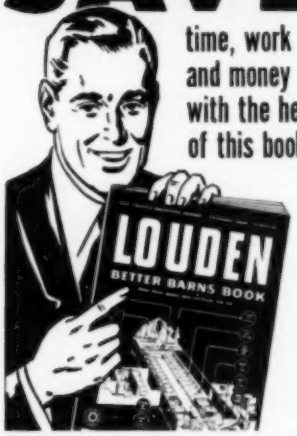

time, work and money with the help of this book

Here's a book you need — especially this year, when farm-hands are scarce. You're facing a tough problem — **how to increase production without enough help** — but you can do it with proper equipment. So send now for LOUDEN Better Barns Book. See how much you can save with the kind of barn and equipment you really need. This valuable 100-page book is yours for the asking — but 10c to cover mail cost will be appreciated. Send for your copy today.

THE LOUDEN MACHINERY COMPANY
22 W. Court St. Fairfield, Iowa
Factory Branch — Albany, N. Y.

February

Poultry pointers

A fast-growing-broiler ration. Research in the poultry department of the Iowa Experiment Station has brought out a ration which will produce 3-pound broilers in approximately 10 weeks. Each ton of this ration contains 60 pounds of fish meal and 160 pounds of meat and bone scraps in addition to corn, alfalfa, soybean oil meal, minerals, and vitamins. The addition of crystalline antibiotics such as aureomycin, penicillin, and terramycin to that ration gave even better results. Gains were increased by 10 percent.

Penicillin at a level of 4.5 grams per ton was equal to higher levels in stimulating chick growth in the tests. Aureomycin and terramycin were effective at levels of 10 grams per ton of feed.—*D. W., Iowa.*

Tips on starting chicks. A good way to get around digestive disorders in baby chicks is to feed steel-cracked corn for 48 hours before shifting to mash. Steel-cracked corn gets around the pasty effect of mash feeds. To shift to mash, just sprinkle some cracked corn over the top.

It's also a good idea to put egg flats, cardboard, or even newspapers (see picture below) over the litter for a week or

10 days. This will keep the new chicks from filling up on the litter. Also, if steel-cracked corn is fed, the paper will keep the chicks from working the feed into the litter.

When chicks are about 2 weeks old, start feeding some granite grit. When the chicks start eating whole grain at 6 to 8 weeks, they will need some grit.

Don't wait until the last minute to get the brooder house ready. Have everything ready to go when the chicks arrive. Clean and disinfect the brooder house several weeks in advance. Then, about 48 hours before the chicks arrive, start the brooder stove. This will give you a chance to get it regulated, and the house will be thoroughly warmed when the chicks arrive.

Dried Ladino for pullets. Laying pullets will do well on fairly large amounts of good-quality Ladino clover, according to tests at the Wisconsin Experiment Station. In the experiments, 5, 10, 20, and 40 pounds of ground Ladino were included in each 100 pounds of a grain-mash ration. The pullets receiving 5, 10, and

[*Turn to page 130*

Science in the Barnyard

By DR. HESS

There are good pigs and not-so-good pigs—and the way to get big litters of good pigs is to put a *complete* ration into your brood sows. If a sow doesn't get enough essential minerals like iodine, cobalt, manganese, iron and copper, she farrows pigs, that are weak, runty, hairless or dead. All these minerals are contained in Dr. Hess Hog Special . . . which helps condition sows for farrowing and gives them more milk to get pigs off to a good start.

The common cold in chickens is called coryza—and this time of year lots of chickens have runny noses, watery eyes, difficult breathing. Coryza kills chickens, but frequently a greater loss results from laying slumps and birds that become worthless culls. Sulfathiazole does a real job against coryza. The Dr. Hess sulfathiazole product—in tablets for easy use in the drinking water—is available from your Dr. Hess dealer. Ask for Dr. Hess Coryza Tablets.

The bug detectives tell us mastitis is caused by numerous kinds of germs. A single drug may not kill more than one type. That's why *two* drugs — penicillin and streptomycin — in Dr. Hess Mastitis Ointment give a wide range of protection against mastitis organisms and kill not one but four kinds of germs.

Scours dehydrate a calf, leaving it weak and skinny. Our research men have been combatting scours successfully with a treatment that kills germs, absorbs poisons causing dehydration and covers walls of the intestines with a protective coating. The formula they've been using contains sulfathiazole, kaolin (a form of clay) and pectin. The first letters of these ingredients form the initials SKP, an easy-to-remember name for the Dr. Hess calf scours treatment.

DR. HESS & CLARK, INC.
Ashland, Ohio
Scientific *Farm-aceuticals* Since 1893

"Can 'Runty' stay and have supper with us, Momma? He's never had any Enriched Hog Special."

"What an easy, convenient way to start chicks right with essential grit!"

STONEMO HOPPER-PAK

Saves time... inexpensive!

"Thanks!" say flock owners everywhere (especially women) "for bringing us the STONEMO Hopper-Pak!"

This light, easy-to-handle combination grit package and two-way feed hopper is winning more and more friends every day! It saves work, time and feed dollars.

Many poultrymen are ordering STONEMO Hopper-Paks right along with their chicks or feed—*starting chicks right* with hard granite grit. Every Hopper-Pak contains ten pounds of STONEMO, just enough for 100 chicks up to the age of 3½ to 4 weeks.

STONEMO is the insoluble granite grit with the "extra grinding surfaces." To assure regularity of each size, STONEMO is screened 9 times . . . and air-cleaned to eliminate dust!

STONEMO helps grind out more from every pound of feed—helps you save on feed costs. STONEMO's hard cutting surfaces help chicks get greater nutritive values from their feed—grow big, strong bodies and reach the profit stage sooner.

Order Hopper-Paks when you order your chicks or feed. Start chicks right—*keep* them right! STONEMO is also available in the economy 80-pound bag at your local feed or poultry supply dealer.

STONEMO the grit with the Extra Grinding Surfaces

STONE MOUNTAIN GRIT COMPANY, Dept. SF-2
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Please tell me how STONEMO grinds out more from every pound of feed.

Send folder "HOW TO START CHICKS RIGHT."

My Dealer's Name.....

Address.....

Name.....

Address.....

Town.....State.....

Poultry pointers

[*From page 129*]

20 pounds of Ladino showed good egg production and thriftiness. However, this was not true of those getting 40 pounds of Ladino.

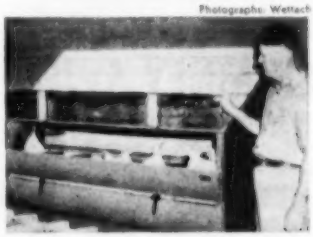
Low quality was a possible cause of the poorer performance of the pullets getting 40 percent Ladino. There was some trouble in getting them to eat enough. Egg size was satisfactory in all groups, but there were a few more broken eggs in the group getting 40 percent Ladino.

For growing pullets, 10 pounds of Ladino or alfalfa per 100 pounds of ration was satisfactory. More than 10 pounds slowed the growth of the chicks.

The researchers warn that the old method of culling the hens having the best coloring in beaks and shanks won't work if large amounts of dried green forages are fed. Feeding large amounts of Ladino or alfalfa to pullets results in yellow beaks and shanks.—*B. R., Wisconsin.*

Easy egg gathering. Hinged boards in front of community nests (pictured below) make it easier for F. W. Leathers, Jefferson County, Iowa, to gather eggs.

Photographs: Wettach



The hen enters the nest through an opening in the rear of nest. The picture shows 1 of the 2 rows of nests in Leathers' new 300-bird laying house.—*A. M. W., Iowa.*

From cows to poultry profits. Broilers have replaced dairy cows in the 38-stall dairy barn of Harvey Field, Dane County, Wisconsin. And his broilers are making more money with less work than his former dairy herd which averaged 412 pounds of butterfat.

Field couldn't find the right kind of help to operate his dairy, so decided to turn to some other source of income. He sold his dairy herd about 4 years ago and since then has been raising broilers in the barn.

He raises around 13,000 broilers annually. The 2,100 square feet of barn-floor space takes care of 3,000 birds at one time. The birds use the steel stanchions as roosts.

According to Field, the benefits of broilers over dairying are: Poultry is a one-man operation; a ready market is available for the broilers; it's easier to get away from home for the evening; there's a better income for the amount of work required; it's easier to take a vacation or to spend the night away from home; and there is a breathing spell between crops of broilers.—*E. M., Wisconsin.*

Poultry stays fresh 2 years. A new process which extends the time a broiler or fryer can be held in frozen storage has been developed by poultry research workers at the Virginia Agricultural Experiment Station.

Under this new process, birds can stay frozen for 2 years. When these birds are thawed and eaten, their quality is as good as that of birds frozen and stored for only 3 weeks. In some cases, the official tasters preferred the long-stored birds.

In the Virginia tests, freshly killed birds were eviscerated and immersed in a solution of melted vegetable fat containing ½ of 1 percent of each of the following antioxidants: Nordihydroguaiaretic acid (NDGA), ascorbic acid (vitamin C), and Krim-Ko-Gel. Then the birds were packed in plastic bags, wrapped in standard butcher paper, frozen at minus 30 degrees, and stored at temperatures ranging from zero to minus 10 degrees. The cost of the antioxidants averaged 1 cent per pound of meat.

Groups of the frozen birds were thawed, cooked, and eaten 9, 12, 16, 21, and 24 months after freezing. Check birds were handled similarly except they were not treated with antioxidants.

At 9 months, differences in quality, particularly odor, were readily observed between the 2 groups of birds. When the birds were cooked, little or no difference could be detected. However, the differences in quality, both in the raw and cooked meat, were strikingly evident in groups of birds stored 24 months.

In taste tests, the treated birds compared favorably with those frozen only 3 weeks.

Grades, cleans eggs at profit. The proper grading and cleaning of eggs, plus an egg route, pays big dividends to Amos Schwartz, Adams County, Indiana. Over the year, he averages from 10 to 12 cents above market price.

Schwartz gathers eggs at least 4 times a day from his 1,000-hen flock. After the eggs are gathered, they are taken immediately to a cool basement. Here the eggs are graded and sorted as to size by a grading machine. The small eggs are kept together; culls also go into a separate basket. The large, clean eggs bring the fancy price.

The small and cull eggs are sold to restaurants, bakeries, and to some housewives for cooking and baking. The ones sold directly to housewives bring a good price, usually as much as a farmer gets for the general run of eggs.

Many of his eggs are sold at his door. Others are shipped to customers as far away as Cincinnati and Chicago. These eggs average 20 cents a dozen more than eggs sold at home.

Schwartz also operates an egg route in a town every Saturday. Customers often call between regular deliveries. He carries culls, smalls, and premium eggs on this route. One large restaurant buys his large fancy eggs for its restaurant trade. The restaurant advertises them as eggs from the Schwartz flock. This has increased the restaurant's trade and the owners gladly pay Schwartz a good premium for his eggs.—*S. M. S., Indiana.*

Perhaps you should dub. Males with frozen combs are no good for breeding until their combs return to normal. Dubbing the cockerels may be the answer if you're selling eggs for hatching in an area of extreme cold weather. Also, dubbed males are permanently identified as breeding stock.

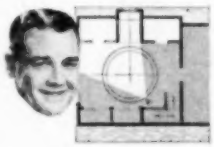
Dubbing may be done any time after the birds are 8 weeks of age. Use a pair of small shears, such as a heavy pair of scissors or tin snips. **END**

PUT A CIRCUS UNDER YOUR ROOF

Yesterday it was just a cluttered, dingy attic—but today it's a circus heaven for lively youngsters—a practical, double-duty room for play and sleep. And, thanks to the Balsam-Wool and Nu-Wood System, the whole job can pay for itself!

How is it done? Simple! The first step is to visit your lumber dealer. He will show you how Balsam-Wool—the guaranteed attic insulation—is easily applied in your home to cut your fuel bills way down. Then he'll recommend pre-decorated Nu-Wood—choice of expert insulating interior finish buyers—to cover the walls and ceiling. And he will top it all with mighty good news: Balsam-Wool can save enough in fuel bills to pay for itself and the Nu-Wood, tool

A Nu-Wood room keeps its fresh, colorful beauty for years and years. It's quiet—because Nu-Wood absorbs unwelcome noise. And, above all, Balsam-Wool guaranteed attic insulation will keep your whole house comfortable the year around. Why wait to remodel—when the Balsam-Wool and Nu-Wood System makes it so easy for you and your budget?



Ask for Free Plans

Your friendly lumber dealer has detailed plans for building this charming attic room with the Balsam-Wool and Nu-Wood system. See him soon.

Send for This Beautiful Room Idea Booklet

It's full of color illustrations showing how to remodel attics, basements, living rooms. Mail the coupon now for your copy.

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Please send me the Nu-Wood Portfolio of Rooms, plus helpful plans on the attic room shown. I enclose 10 cents. (Please print)

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FATHER AND SON

TWO GENERATIONS

USE THE NEW, IMPROVED GLOBE 1-2-3-4 *Rhythm* MILKER

Ralph Parrish of Fairfield, Iowa, bought his GLOBE MILKER back in 1945, and last year when his son, Vernon Parrish, started farming for himself . . . IT WAS A GLOBE MILKER HE CHOSE.

Here is what father and son say about GLOBE . . . "We like the idea of not having any fixed installations to make and maintain. GLOBE is easy to use, milks fast and is easy to clean.

"Since using our GLOBE MILKERS our cows have had no udder trouble. We feel that the regular, never-varying pulsation and the 1-2-3-4 milking rhythm keeps udders in perfect condition and increases our milk production. As long as we milk cows we will never be without our GLOBE MILKERS."

ONLY GLOBE GIVES THAT
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GLOBE milks one teat at a time in a steady regular rotation . . . just like a calf sucks . . . just like you hand milk . . . only faster—MUCH FASTER. Positive pulsation gives you milking action that never, never varies.

GLOBE HAS EVERYTHING . . .

. . . you want in a milker—AND AT A PRICE YOU CAN AFFORD TO PAY. Write today for full details and special low price . . . a price so low you can't afford to continue milking by hand or with an inefficient machine.

GLOBE MILKER COMPANY
1ST & COURT DES MOINES, IOWA

KEEP CANS CLEANER! --KEEP MILK CHECKS *coming in!*

use OXCO PALMETTO DAIRY BRUSHES

THE GONG-OX makes cans sparkle, cleans vats, walls, floors, milking machines, etc. Stiff palmetto fibres scrape and loosen stickiest dirt. Rounded shape gets into tight corners. Wide scrubbing area means faster cleaning. Strong detergents won't harm tough fibres. Big seasoned hardwood handle fits the hand. Use Gong-OX for all dairy cleaning. Ask for long-wearing Oxco dairy brushes at hardware stores, dairy supply houses.

RED BREAST WHISK cleans clothing, car upholstery, furniture, etc. Stiff palmetto fibres. Metal handle—hanging ring. One of hundreds of long-wearing Oxco brushes for home use at hardware and other stores.

OXCO BRUSHES

OX FIBRE BRUSH COMPANY, INC.
FREDERICK *Established 1884* MARYLAND

WANT MORE WHEAT?

See Me On Page 145

Gurney's MIXED Snapdragons

A BIG 15¢ PACKET OF THESE BEAUTIES FOR A 3¢ STAMP

Old garden favorites with a modern touch. The most beautiful pastels and brilliant hues you can imagine! HUGE and RUST RESISTANT! To get your big packet just send 3¢ stamp today. We'll include free a copy of our big, new catalog and subscription to "Planting Magazine" — Limit One to a Customer.

GURNEY SEED & NURSERY CO.
601 Page St., Yankton, S. Dak.

Milk-can platform hoist

One of the big problems in the milk-handling business is lifting full cans of milk into and out of the cooling tank. Schwartz Brothers, Troy Center, Wisconsin, designed and built a laborsaving device for doing this job.

Their milk tank is 4'x14' and will hold thirty 100-pound cans of milk. This amount is their average milk production per day. First, the Schwartz brothers bought a piece of boiler plate and had it cut to fit the inside dimensions of their milk tank. They welded heavy angle iron to the edges of this plate. The boiler plate was

Power unit for lifting the milk-can platform is located in the attic of the milk-house. A reduction unit slows motor speed

Platform is raised out of tank by four cables. Loading platform is at one end of the tank. Cans slide from tank into truck

After milking, cans are placed on platform and then lowered into tank. Loading platform is shown above in raised position

perforated with eight 4" holes through which the water could escape when the platform was raised and lowered.

The platform is suspended from four rods fastened to $\frac{3}{8}$" wire cables. When the $\frac{3}{4}$-hp electric motor is turned on, these wire cables wind up on pulleys mounted on a shaft directly above the water tank in the attic of the milkhouse.

The electric motor is fitted with a 2" pulley on the shaft. The V-belt drives a 16" pulley on a reduction unit. This reduction unit turns the main shaft and winds up the cables at a slow speed.

The milk cans are set directly on the steel platform in the tank. A hinged cover is lowered over the top of the tank to keep the water as cool as possible.

When the milk truck arrives, the driver lowers a swinging platform in the doorway of the milkhouse. This platform is level with the side door of the truck. The driver turns on the switch in the milkhouse and raises the platform with 30 cans of milk up to the level of the swinging platform. The side door to the milkhouse is high enough to walk through and slide the cans onto the loading platform. This saves heavy lifting.

The platform is held in a rigid position by a $1\frac{3}{4}$" pipe guide. This pipe has a sleeve which is clamped to the suspension pipes on the platform. END

$55-an-acre land pays back $94

Some of the steepest land in southern Illinois grossed over $94 an acre after its owners combined soil treatment with a legume-grass program.

The pastureland had two strikes against it at the start. It had been in corn and small grains almost continuously for 20 years and was some of the steepest timber-originated soil in southern Illinois.

The Hickman brothers of Jackson County bought it for $55 an acre in 1946. After testing the soil, they added lime, potash, and phosphate according to the test results.

In the fall of 1947, they seeded 12 acres to brome-alfalfa. The following April they turned in 36 yearling steers to pasture. When taken off pasture August 1, the steers had made an average gain of 148 pounds. That figured out to 444 pounds of good, solid beef gains an acre. The steers sold for $22 a hundred. Each acre of brome-alfalfa pasture paid the Hickman brothers $94.38.

Do you have a question?

Through our Farm and Home Service Bureau, *Successful Farming* offers you personal-letter help with your problems without charge. Please outline all details of your question clearly when you write. If referring to an article in the magazine, mention page number and month of issue.

Address your inquiry to The Farm and Home Service Bureau, *Successful Farming*, Des Moines 3, Iowa.

SAVE HOURS OF WORK with DREFT

Scientific "Floataway" Action gets milking equipment cleaner—without hard scrubbing

● You'll be amazed how Dreft's scientific "floataway" action saves you real work when washing milking equipment.

Milk pails, strainers, separators come sparkling clean without hard scrubbing. Milkstone in separators rinses away, saving you valuable butterfat. Bacteria count drops because Dreft removes germs' breeding grounds. Milk quality improves!

No wonder farmers report bigger profits once they switch from soap to Dreft.

Dreft takes the work out of Dishwashing, too!

Here's the easiest dishwashing ever! Simply let your dishes soak in warm Dreft suds for 2 minutes. Then, give a swish of the cloth as you rinse—and dishes shine without wiping. Amazing "floataway" action lifts grease off dishes like magic.

Yet mild new Dreft leaves your hands soft and lovely. Get Dreft today.

Saves work... Saves money

That's what those who have seen it are saying ABOUT THE AMAZING...

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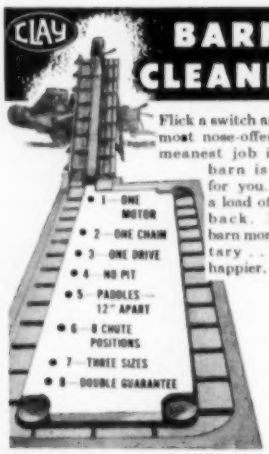
IT'S FAST! IT'S POWERFUL! IT'S ECONOMICAL! It's Outstanding! IT'S VERSATILE! IT'S MODERN! IT'S A WORKING FOOL! IT'S AMAZING! IT'S REVOLUTIONARY! IT'S THOROUGH!

It's a worthy comparison to the famous Vulcan pulverizers . . . Roderick Lean spike tooth and spring tooth harrows, disc harrows, rotary hoes and the equally popular Harvey farm elevator, hammer mills and corn shellers. ..THIS IS IT!

FARM TOOLS, INC.
Manufacturer
Quality Farm Implements since 1862
MANSFIELD, OHIO, U. S. A.

CLAY BARN CLEANER



Flick a switch and the most nose-offending, meanest job in the barn is done for you. Take a load off your back. Make barn more sanitary . . . help happier.

- 1—ONE MOTOR
- 2—ONE CHAIN
- 3—ONE DRIVE
- 4—NO PIT
- 5—PADDLES—12" APART
- 6—8 CHUTE POSITIONS
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Order direct from this advt. or write for the Ferris Catalog with hundreds of attractive, low priced suggestions in FERRIS Northern Grown Evergreens, Shade Trees, Flowers, Shrubs, Bulbs, Perennials, Roses, Fruit Trees, Berries, etc.

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291 Bridge Street, Hampton, Iowa

Soil sample

[*From page 38*]

Sample problem areas. If there are spots in the field that don't do as well as others, sample these spots separately. They may be high-lime spots that can be corrected quite easily and will pay well for the extra trouble.

Sample the plow layer 6 or 7 inches deep. If you are sampling where corn or another cultivated crop has been grown, take the cores from between the rows to lessen the chance of getting unused fertilizer in the samples.

Mix cores before taking composite. Take the handfuls of soil needed for the sample from different parts of the pail.

If the soil is wet it will need to be air-dried. Do not use an oven or other high heats as that will throw the test off.

Put the sample in a suitable container. Take about a pint of soil. Many states have containers obtainable free, from county agents or others cooperating in the soil-testing service. If not, ice-cream containers or heavy paper bags will do.

Label sample and locate on map. Many a farmer has gotten his tests back only to discover he couldn't remember the locations in the field where he took the samples!

Give a history of field. Most states have sheets on which you can list these facts. If they are not available, here are the facts you should give:

1. The legal description of the land—range, township, section, quarter, or the soil-conservation classification of the land. With this information the person who interprets your test can tell from soils maps what type of soil you have.
2. What crops were grown last year and the year before? How well did they produce? Give other facts on the growth of the crops.
3. When was the field last plowed?
4. How much lime and fertilizer has been used and when?
5. How much manure has been used and when?
6. When were clovers and alfalfa last grown on the field? Was it a good, fair, or poor stand?
7. What crops are to be grown during the next four years?

Put this history in an envelope with 3 cents' postage and attach the envelope to the *outside* of the package of samples. Include a copy of the map of the field showing where the samples were taken. Tell what tests you want run on the samples. Most all states test for acidity, phosphate, and potash. Some also include available calcium, magnesium, and stable organic matter. All are useful in assessing the fertility of your soil, but most important are acidity, phosphate, and potash.

What about samples of subsoil? Some states ask for them. Others do not. If you are in areas where the rainfall is light, then you may have accumulations of harmful salts in the subsoil that may limit the kinds of crops you can grow. Low-lime subsoils occur across the southern Cornbelt. They may be holding back your legumes. Test to find out.

A subsoil sample should represent the soil from 6 to 18 inches deep. It is wise to

take more than one core for a composite, although the soil testers in some states ask for only one.

Mark subsoil samples plainly so that they will not be confused with those from the plow layer. Show on the map where they were taken.

When is best time to take samples? Any time, but it's easier when the ground is dry and crops do not keep you from locating the different areas.

When samples are taken and tested in the fall, you can order lime and have it spread when the ground is firm. You can work it in the soil long enough before seeding legumes. You can order the fertilizer you need and spread it in the fall or have it on hand when you need it in the spring.

Samples from pastures and other sod grounds can be taken any time during the year.

You can take samples during the winter *if:* (1) you are sure to get a good composite sample of the plow layer; (2) you are sure to thaw the soil and *air-dry* it before mixing the soil and taking the composite sample for the laboratory.

Test fields you will fertilize. If you sample those fields you intend to plow and plant next year, especially those to be seeded down or planted to corn, you can make best use of lime and fertilizer.

Watch out for these mistakes. With a little extra time you can avoid the mistakes soils men have caught in the samples sent to their laboratories.

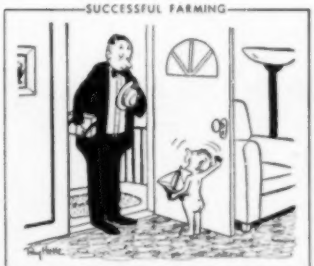
Here are some of them:

"Some folks take only one sample to represent a whole quarter-section." "They sample the field by the compass—one from each corner and one from the middle no matter how many different soil areas there may be." "They combine soil from different areas in the field to get an 'average' sample that tells little or nothing." "Samples are poorly labeled." "Samples are too small." "When flimsy paper bags are broken, the samples are hopelessly mixed." "No history of the field is given with the samples."

Where can you have your soils tested? Practically every state where *Successful Farming* is read has a state soil-testing service. Ask your county agent, fertilizer dealer, or write to your state agricultural college.

There are many private commercial soil-testing services, too. Most of them work closely with the soils-research men to keep their tests accurate and their recommendations sensible. **END**

SUCCESSFUL FARMING



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● When you get your water system, you want plenty of water, wherever it's needed, *all* the time. F & W offers a complete line of pumps, so you can be sure of a model to fill your requirements exactly. And F & W Water Systems have proven their dependability in farm use for 86 years.

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automatically follows the contour of your field

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Brooder House, Schroeder Poultry Farms, Breese, Ill. Exterior walls are ¼" "Century" APAC.

Build it quickly, economically... get the long-lasting protection of "Century" APAC!

This clean-lined brooder house is typical of the modern farm buildings you can build with "Century" APAC—Keasbey & Mattison's versatile Asbestos-Cement structural sheet.

Strong and durable, APAC resists weather—can't burn, rot, or rust. Rodents and termites can't harm it.

Maintenance-free, APAC continues to save money for you over the years. It doesn't even need protective painting to preserve it.

Easy to handle—easy to apply! APAC can be cut and fitted on the job. Large-size sheets 4' x 8' can be fastened with ring-fettered nails or screws. You can do nearly any job with APAC yourself—quickly, easily, inexpensively.

For your next poultry house, milk house, cattle shed, machinery shed, feed bin, barn—in fact, for any new structures, repairs, or additions, consider "Century" APAC for both interiors and exteriors. Write us for illustrated folder.

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Enjoy *Successful Farming*'s helpful hints for better living each month.

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Fertility loss hits wheat

Despite vastly improved varieties, wheat yields on large acreages of the southern Great Plains have not increased in 30 years.

The first warning of what was going on came in 1947. That was a "peach" of a year for wheat on the High Plains. There was no lack of moisture when the ground was being prepared the year before. After planting, the seasonal conditions were ideal—plenty of rain, but not too much, during fall, winter, and spring.

The result—while the crop was in its rapid-growing stage between January and May, you could tell just by the appearance of the wheat where fertility was lacking. A common sight out in the "old Dust Bowl country" was a field stooling out thinly and making a short growth; puny, yellowish green in color, right alongside a growth of vigorous, dark green wheat.

To find out why, soil technicians checked up on the history of fields on some 800 farms. H. H. Finnell, superintendent of the Panhandle Experiment Station, Goodwell, Oklahoma, summarized what they found.

Almost without exception those pale, sickly-looking crops of wheat were standing on fields which had been severely blown out during the 1930's. Many such pieces of land had lost as much as from 1 to 4 inches of the topsoil. In addition, they had been in cultivation 25, 30, and 35 years.

The wheat records on the 800 farms tell a story something like this:

Where land had been in cultivation 30 years or so and no effort made to control wind erosion upon it, the loss in production capacity averaged 7 bushels per acre. This means that in good years the limit in bushels per acre that can be produced is set by the fertility of the land. *Severely eroded wheatland which has been in cultivation 30 years would lack 7 bushels per acre of producing what good, new land of the same type would make.*

Blown-out wheat field in southern Great Plains. Improved varieties of wheat have barely kept pace with fertility losses

How did the fertility level fall 7 bushels per acre without farmers' knowing it? Finnell answers:

"On the High Plains, the new and better varieties of wheat are producing nearly 21 percent more than the old varieties grown back when the land was first put in cultivation. While the productivity of the land was going down 22 percent, the productivity of improved varieties was going up 21 percent. Also, we progressed from horsepower to modern, tractor farming."

> **If a fellow doesn't have a good time once in a while and get a good laugh out of the serious side of life, he doesn't half live.** —*Will Rogers*

Organic matter must be restored. This goes back to its depletion either by erosion or long use of the land.

To reverse the trend of declining soil fertility, Finnell believes in starting on a conservation program as soon as new land is broken out, without waiting for visible signs of damage or, even in some cases, until the gullies or soil drifts interfere with cultivation. END

Mixed elements may be harmful

"Shotgun" mixtures of trace elements, added to fertilizers and put directly into the soil, are not only impractical but may even prove troublesome, says Dr. K. C. Beeson of the United States Plant, Soil, and Nutrition Laboratory, Cornell University, Ithaca, New York. For example, the quantity of boron required on certain soils to produce normal yields of alfalfa would be toxic to soybeans and possibly corn.

Unfortunately, little is known about the effect of trace elements on the nutritional value of feedstuffs. Most grains are poor sources of cobalt, copper, and iron. Also, there is no evidence that fertilization with these elements would very much increase the amount found in the seed of the plant.

Alfalfa, however, is a good source of these nutrients, and in general probably reflects in its mineral content the supply in the soil. Except for some leafy crops, there is little evidence of any direct relationship between the trace-element supply in the soil and the vitamin content of the plant.

Beeson points out that specific trace-element tests can be made, and if one is found lacking, its lack can be corrected without the addition of others which are unneeded and may be harmful.

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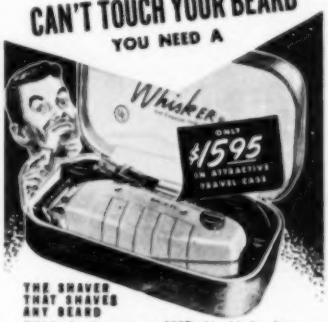

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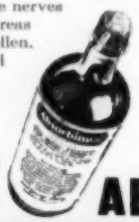

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Trace minerals increase pigs' rate of gain

By Dean C. Wolf

Feeding trace minerals proved a paying proposition when the minerals were added to growing-fattening pig rations at the Iowa Agricultural Experiment Station. The pay-off came in faster gains and savings in feed required to produce 100 pounds of pork.

On a dollars-and-cents basis, feeding trace minerals from weaning to market adds up to a net profit of $175.89 for a farmer who has 20 sows farrow and saves 6.5 pigs per litter. That figures out $8.79 per litter, or more than a dollar extra profit per pig. This amount isn't to be sneezed at these days.

The saving, when using trace minerals, comes from feed saved in producing pork. In the tests, the pigs fed trace minerals produced an average of 100 pounds of pork on 17 pounds less feed than pigs on the basal ration. Pigs on the basal ration required 349 pounds of feed to produce 100 pounds of pork. Those getting trace minerals needed 333 pounds of feed.

In another test, pigs on the basal ration produced 100 pounds of pork on 357 pounds of feed compared with 338 pounds of feed when trace minerals were fed.

Faster gains put pigs on the market in a shorter time when they were fed trace minerals. This resulted in quite a saving in labor. It took 140 days from weaning to market without trace minerals in the ration. With trace minerals, the weaning-to-market period was cut to 133 days. Saving 7 days is important, considering the supply and price of farm labor.

Trace minerals were fed at the 0.05-percent, 0.10-percent, and 0.15-percent levels. They included iron, copper, cobalt, manganese, and zinc. A better-than-average growing-fattening ration was used as the check. It was made up of ground yellow corn, soybean oil meal, 5 percent meat and bone scraps, vitamin B_{12}, aureomycin, and a vitamin premix including B-complex vitamins and vitamins A and D, and minerals.

Gains were significantly improved by adding trace minerals to the rations—the biggest boost coming from the 0.10-percent level. Average daily gain was improved by 0.08 and 0.10 pounds per day. Pigs on the basal ration in one test averaged 1.76 pounds' gain per day compared with 1.84 pounds per day when fed trace minerals. The average daily gain of the pigs in the other test was 1.67 pounds on the basal ration and 1.77 pounds when trace minerals were added.

A sidelight of the experiment indicates the possibility that there is a "carryover" effect exhibited by pigs from sows fed trace minerals during gestation and lactation. Average daily gain of all pigs from sows receiving no trace minerals was 1.73 pounds per day. Pigs from sows fed an 0.10-percent level of trace minerals averaged 1.82 pounds per day during the growing-fattening period. END

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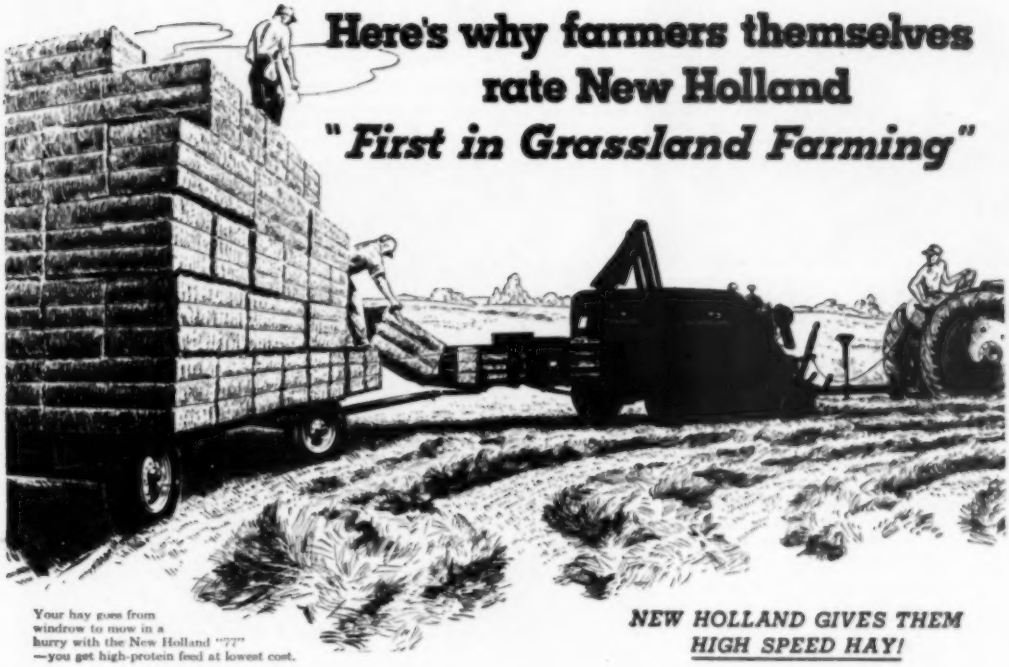

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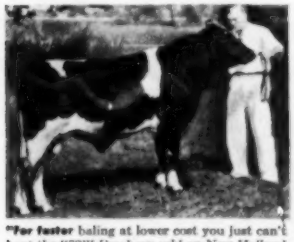
"With our "77" we can harvest our hay the minute it reaches peak quality. It's a real labor saver, too," says William G. Fox, R.R. 1, Guilford, Indiana.



"For faster baling at lower cost you just can't beat the "77"! I've been sold on New Holland balers since 1942," says Walter Hurlburt, Ashley Falls, Mass.

"With a short hay season, we depend on our "77's" to get a big job done fast. They have our *highest* recommendation," says Walton W. Thorp, Britton, S. Dakota.

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Virus W—cause of hog-cholera outbreaks?

Another step toward cracking the mystery of recent baffling hog-cholera outbreaks in vaccinated herds has just been announced by the *Journal of the American Veterinary Medical Association.*

In a preliminary report, Dr. Richard L. Williamson, staff veterinarian of the Fort Dodge Laboratories in Fort Dodge, Iowa, said that a virus, different from any previously reported, has been found in swine.

Animals immune to the regular cholera virus are unprotected against a form of cholera caused by the new virus, which has been named Virus W. On the other hand, animals immunized against Virus W automatically are protected against the regular hog-cholera virus.

Swine of all ages are susceptible to infection with Virus W, Doctor Williamson said, although they seem to build up a little resistance to it as they get older.

A striking fact about this new agent is that it apparently causes no damage to pigs when it works alone. Illness results only when complicating factors are present, such as other infections, parasitism, or nutritional deficiencies.

Commenting on the report, a spokesman for the American Veterinary Medical Association said it throws new light on some of the cholera outbreaks in vaccinated herds the past few years.

Ways to shift to grass silage

Milk production is likely to suffer during the change-over from corn silage to grass silage, especially if the change is made suddenly.

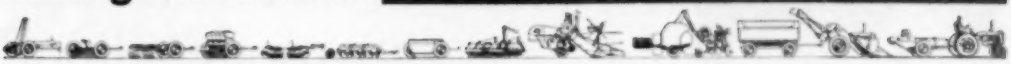
John Kitchen, dairy-research specialist at the Rutgers Agricultural Experiment Station, suggests three ways of preventing this loss of milk production.

The first and most convenient way is to feed additional grain. However, this is likely to be too expensive at the present high cost of grains.

The second method is to feed a liberal amount of the best hay available during the change-over. The extra hay, Kitchen explains, helps to make up for the lower silage consumption, keeping milk production on an even basis.

The third method, and probably the best, is to start feeding small quantities of grass silage a week or 10 days before the corn silage is all fed out. Keep increasing the grass silage and decreasing the corn silage until the change-over is complete. This is sometimes hard to carry out, Kitchen admits, as a farmer will need two silos, one containing corn and the other grass silage.

Making the most of MECHANIZED FARMING



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"In present day agriculture it takes more than a strong back to do a good job of farming or enjoy a decent living. Machinery greatly increases the amount of work any man can do —and his income increases correspondingly!" says Gerald Chapin, one-armed veteran.

Chapin, successful operator of a dairy and poultry farm, got his convictions by discovering for himself what mechanization can do. His equipment includes: a forage harvester and blower that cut his time for putting up grass ensilage from three weeks to one; a pick-up baler that gets hay into the barn in a hurry; a home-made power loader that does everything from cleaning loafing pen to loading logs.

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3. SWINGS EASILY, SAVES HINGES

A Colorado farmer installed this wheel at the far end of a 20-foot gate that separates his farmstead from the pasture. The wheel makes the gate easy to handle, protects hinges, too.

$10 FOR IDEAS: Do you have an idea like this on making the most of mechanized farming? We'll pay $10.00 for each idea that we accept and publish. Send photo of implement and description to the Timken Company, Dept. SF-2, Canton 6, Ohio.

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"We like our one-room school"

Mrs. Willard J. Cox

One of the many thoughtful letters which reached us as a result of Benjamin Fine's article on rural schools, October *Successful Farming*, is the following one written by a former rural teacher, of Mineral Point, Wisconsin

Dear Editor:

I was interested in the article entitled "Horse and Buggy Education," by Benjamin Fine in the October issue of *Successful Farming*. Mr. Fine has made an extensive investigation of one-room rural schools and his shocking findings are true in too many cases. However, in fairness to your readers, I would like to point out the advantages of a *well-run* small rural school.

A small school is as progressive or as backward as the people who make up the school district. The teacher in our school is a two-year State Teachers College graduate and she is taking night-school classes and attending summer sessions to complete her three-year course in education. In place of the $75- to $100-a-month wage mentioned in Mr. Fine's article, we pay our teacher $250 per month.

We have free textbooks furnished by the district. These are changed frequently or supplemented to meet state and county requirements. We have a new set of World Books and maps furnished for reference material.

The building itself has not been allowed to deteriorate. Last year, it was painted on the outside. This year the ceiling was lowered and a new pine-paneled ceiling and plasterboard sides were installed. The men of the district did the labor at a total cost of about $800. We also bought new shades and curtains.

The school is wired for electricity, and is equipped with a radio. Time is set aside each day for State University programs on music and art, so if the teacher is not talented along these lines, the pupils do not suffer from lack of cultural training.

The teacher is strictly supervised by the county superintendent and her supervising teachers. In addition, the teacher mails a six-weeks report and an annual report on the progress of each child to the county office.

Each student is required to write examinations and meet rigid standards before he can finish the eighth grade and go on to high school. These boys and girls seem to do just as well when they enter high school as students from the city.

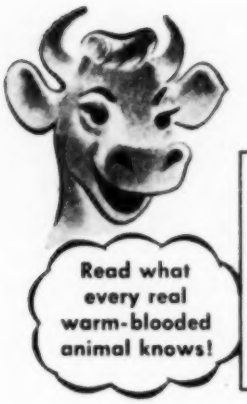
The teacher has from 10 to 15 students, so has time to know and supervise each child closely. She can help him with his individual problems and differences. She can also become acquainted with his parents and learn something about his home life. This is seldom possible—or simply not done—in a larger school.

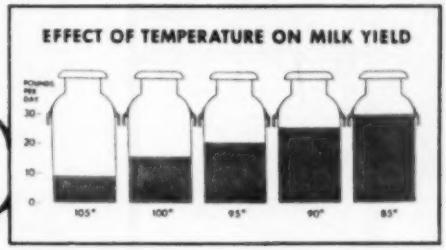
Many of the younger rural children have always been used to small groups and would be at a great disadvantage if suddenly plunged into large classes in a city or centralized school system.

I do agree that there are definite drawbacks to any one-room rural school, but much can be done to compensate for them. For one thing, there is no hot-lunch program at many of these schools, which is a definite disadvantage. However, any mother who knows anything about nutrition can see that her family is well fed by providing a good warm breakfast; a well-planned lunch including meat or eggs, milk, and fruit; and by serving a dinner

[*Turn to page 144*

Chart Your Course to More Profits with Cows or Pigs or Chickens!





IN A HOT ATMOSPHERE every warm-blooded animal spends much of its energy trying to keep cool. Cows eat less, milk yield drops – it can drop to almost nothing above 105°. Chickens eat less, egg production drops – a bad heat wave can kill your birds. Hogs gain less, and their gain per pound of feed falls rapidly above 75°.

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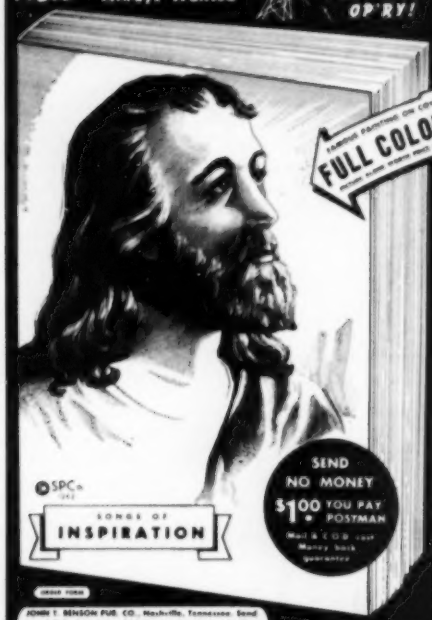

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8. Hold to God's Unchanging Hand
9. How Beautiful Heaven Must Be
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11. I Can Tell You the Time
12. I'd Rather be an Old Time Christian
13. I'd Rather Have Jesus
14. I Dreamed I Searched Heaven for You
15. If I could Hear Mother Pray again
16. If We Never Meet Again
17. I'll be a Friend to Jesus
18. I'll Fly Away
19. I'll Make it My Home
20. I'll Meet You in the Morning
21. I'm Free Again
22. I'm On the Battlefield for My Lord
23. Is There anybody here that Never Knew Him?
24. I've Got that Old Time Religion in My Heart
25. I Want that Kind of Blessing
26. I Want to Know More about My Lord
27. Jesus Brings Sweet Joy to Me
28. Jesus Hold My Hand
29. Jesus, I'll Follow Thee Through
30. Just a Closer Walk with Thee
31. Just a Little Talk with Jesus
32. Just Over in the Glory Land
33. Keep on the Firing Line
34. Kneel at the Cross
35. Lead me to the Rock
36. Looking for a City
37. Lord Build Me a Cabin in Glory
38. Lord, Lead me On
39. O Happy Day (Southern Quartet Arranged)
40. Precious Memories
41. Shake Hands with Mother Again
42. Take my Hand, Precious Lord
43. Talk it over with Jesus
44. The Home Coming Week
45. The Old Gospel Ship
46. This World is not My Home
47. Victory in Jesus
48. Way down Deep in my Soul
49. We'll Soon be done with Troubles and Trials
50. We Will rise and shine
51. When God Sips His Love in my Heart
52. When He calls I'll Fly away
53. When the Saints Go Marching in
54. When the Saviour reached down for me
55. Where Could I Go

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One-room school

[*From page 142*]

in the evening instead of the conventional country supper. (*In many small schools, the mothers take turns bringing hot dishes and supervising a balanced-lunch program at the school.—Editors*)

Few country schools have gymnasiums or even playground equipment, and many lack supervised play periods. However, most of the farm boys and girls have duties to do at home before they leave for school and when they get home. They help with the farm work, so don't lack exercise or supervision, either. What could be better for a boy than feeding and fitting a calf of his own for a stock show, or helping his father feed cattle for market?

It costs a great deal more per student to maintain these smaller schools. But which is more important—the cost per student, or the fact that our children are comfortable and happy in an environment to which they are accustomed?

The aim of our school board and the community is to educate our children so they will become happy, well-rounded individuals.

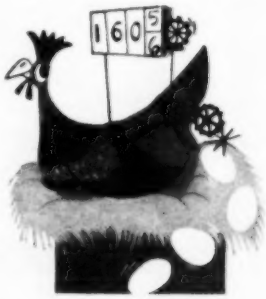
In most states, before consolidation or some form of centralization can be worked out, the first of *many* problems is a better system of roads and snow clearance so bus service can be practical or even possible. This expense would be in addition to the actual construction of these new buildings and would be a drain on an already overtaxed population.

I am a former rural schoolteacher and the mother of two sons who attend a one-room rural school. My husband is school-board clerk. We hope you see fit to give this side of the rural-education problem to your readers.

Mrs. Willard J. Cox
R.F.D. No. 1
Mineral Point, Wisconsin

See "One Hundred Cents for Each School Dollar," page 50.

It's the truth



An ingenious farmer down California way counts eggs like the old-time conductor ringing up fares on Broadway. He holds a patent on a contraption which he straps to the wings of his chickens. A rod which runs along the chicken's back is attached at the rear to a ratchet arrangement with a roll of numbers. As the egg exits on a roller, click goes the ratchet and the next higher number appears on the roll.—*Mike Rivise.*

New in homemaking

[*From page 24*]

The new rollaway carts will easily carry more than 200 pounds. They're easy-rolling and light. Two 12x17-inch trays will carry dishes, cleaning supplies, food. Cart comes in light green enamel; folds for storing. About $9.95. Sent express collect.—*The Stones, 407 E. Mountain, Glendale 7, California.*

Self-spout molded into the brim of this big plastic mixing bowl means less dripping and an easier flow of batter. Bowl is comfortable to grip and is specially

constructed for use with electric mixers. Comes in red, yellow, ivory, or white. In stores, 59 cents.—*Rogers Plastic Corporation, West Warren, Massachusetts.*

No-Mar drapery fixture makes it possible to extend draperies up to 16 inches beyond your window frames, without defacing woodwork. Made of steel, painted white. Comes with set of screws and in-

structions. Postpaid, $1.25; add 25 cents postage if shipped west of Mississippi.—*The Mail-Mart, P. O. Box 145, Upper Darby, Pennsylvania.*

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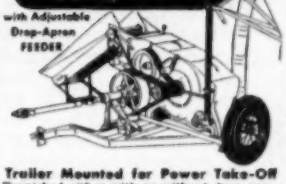

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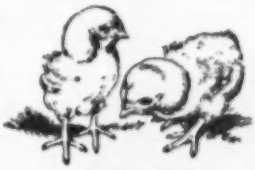

BE SURE TO GIVE CHICKS THE RIGHT START

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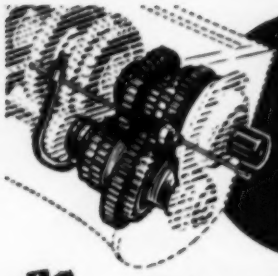
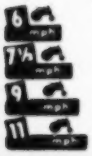


4 More Field Speeds FOR YOUR FARMALL



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Make room for sheep

[*From page 49*]

the marginal wheatlands along the eastern slope of the Rocky Mountains.

Cornbelt farmers, on the other hand, haven't the problem of lining up a shepherd to trail a band of ewes up the mountains for the summer. New developments in sheep-raising "know-how" have helped the general farmer, too. For example, a practical way of controlling internal parasites in sheep confined in small areas has been developed. This has been the No. 1 problem of the native-ewe flock.

Prices of sheep and lambs probably *are in the strongest long-time position of all livestock's.* Numbers are so small that consumer demand is likely to take all lamb and mutton production at relatively high prices for quite a long time to come. And

> **He who sees his own faults is too much occupied to see the faults of others.**
> —*Arabian Proverb*

though the wool picture has been highly unsettled, it still is good compared with the prewar one.

Many farmers start in the sheep business with a small flock. This has advantages, for it does not seriously interfere with other farm work. A small flock can bring in additional income, help clean up odd corners about the farm, and use roughage.

Some farmers use sheep only for scavengers—keeping just a half-dozen head or so. *Sheep do a good job of cleaning up weeds and fence corners. But that doesn't mean sheep won't return a nice profit from good care and management.*

In general, you can figure that the same amount of pasture is needed for 5 ewes and their lambs, as for 1 cow and calf. A cow needs a half-acre of hay during the winter—a ewe needs about one-quarter acre. The carrying capacity of a good alfalfa-brome pasture is around 5 ewes and their lambs per acre. This is a conservative figure. Some years, you can go higher when weather is favorable.

What will it cost to go into the sheep business? Compared to beef, the cost is lower. For instance, one beef cow will cost from $300 to $375. One calf from this cow per year will be worth about $160. Five ewes will cost anywhere from $125 to $200. Five ewes probably will give you 7 lambs worth about $170. On top of that, you'll make about $30 on the wool.

Glenn Randau, Story County, Iowa, is a good example of a farmer who has combined the scavenger qualities of sheep with a good management program to make a profitable small-farm enterprise.

"My ewes do a good job of cleanup," he says. "They save my hands and back by getting rid of weeds in the orchard and around odd corners. They are especially handy for getting weeds out of places hard to reach by hand. I'd have them around if they didn't make me a dime." But they do make him money. Considering his investment, Randau figures sheep do as well financially as his hogs and cattle.

Thirty-five beef cows and their calves harvest most of the roughage produced on this 160-acre central Iowa farm. The

25 litters of hogs produced yearly—15 in the spring and 10 in the fall—eat most of the grain. A laying flock of 200 hens completes the livestock program.

Spring pigs and lambs come at the same time on the Randau farm—in late February. The lamb crop is small enough that it doesn't interfere with the spring-pig farrowing.

Randau has a sheep barn to handle his 25 ewes and their lambs. Early lambs need good care, he says. So sheep get the best-quality hay in the wintertime. His beef herd gets the poorer-quality hay. After the first 3 to 4 weeks, the lambs and ewes get along with very little labor and care. From then on, the main job is to keep the creep well filled with dry feed so the lambs stay gaining on schedule to hit the July market.

Randau always uses a purebred, mutton-type ram. He hasn't saved any ewe lambs for 4 or 5 years because of high lamb prices. As a result, his ewe flock is old. Some are 10 and 11 years old—yet are going strong. He keeps his ewes as long as they will produce good lambs.

The two most common mistakes made by farmers with small flocks are buying low-quality breeding stock and failure to have a well-made plan for marketing early lambs.

Breeding stock may be either native or ewes brought from the Western range. If Western ewes are bought, be sure they are not too old to return a good lamb crop. Ewes with good mouths and bags—but too old for Western range conditions—may still produce 1, 2, or 3 good lamb crops in the Cornbelt. Westerns should average a lamb per ewe, natives up to a lamb and a half. In either case, a good-quality, purebred, mutton-type ram should be used. Wool-type bucks just don't yield lambs with quality carcasses.

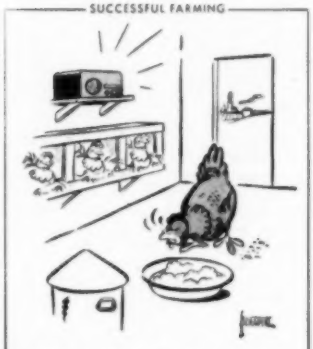
The man who raises early lambs for market must have his lambs *come* on schedule and *stay* on schedule. Early pasture helps a lot in getting the lambs gaining fast. Some farmers seed rye in the fall for this early-lamb pasture. Early-spring lambs should be sold in June or July to avoid competition from lower-cost late-spring lambs.

Farmers who live on larger farms with a high percentage of pastureland may want to expand their ewe flocks as they gain skill in handling sheep.

For example, Wayne Simington, Clay

[*Turn to page 148*

SUCCESSFUL FARMING



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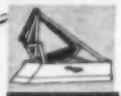

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Fringed or Notched Blooms Supreme Florists' Strain. The Handsomest Frilled Petunia in the World. "Large, rich colored blooms in every conceivable shade on stately plants. Send 10c in coin for Regular 50c Packet (150 Seeds) and Big Seed & Nursery Catalog FREE

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FREE Famous GRO-COATED Brand GRASS SEED

Disease-Protected for Greater Insurance of Better Stands, Larger Plants, Bigger Yields

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U.S. CROWN ALFALFA Special Offer Save on hardy triple recleaned seed. High germination. Extra fine value. Alfalfa stocks short. Sample FREE. $22.80 BU.

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ALL GRO-COATED PROTECTED

AMERICAN FIELD SEED CO. DEPT. 2710 CHICAGO, ILL.

Make room for sheep

[*From page 147*]

County, Iowa, likes to carry a high-legume acreage on his 400-acre farm. So he needs a large livestock program to handle the roughage. With 100 acres of corn, 100 acres of oats seeded down to legumes, 100 acres of alfalfa-brome hay, and 100 acres of alfalfa-brome pasture, profitable roughage utilization is a big problem.

Simington chose a ewe flock because he believed there was less risk with ewes than with feeder cattle. And he likes to work with sheep. He figures the returns from

> **Man is the only animal that laughs and weeps; for he is the only animal that is struck with the difference between what things are and what they ought to be.**
> —*Mark Twain*

sheep per dollar invested equal those from other classes of livestock. So the livestock program on the Simington farm consists of 250 ewes, 40 beef cows, and 250 to 300 hogs a year.

With this size hog program, it's difficult to have the lambs and the pigs come at the same time. Simington's lambs are dropped in early February and March; his hogs farrow after that. He remodeled an old barn for the ewes. Panels separate the ewes at lambing time. Heat lamps protect the newborn lambs. Like Randau, he creep-feeds his lambs for the July market.

Simington buys some Western black-faced ewe lambs each fall for replacement. He breeds immediately for spring lambing—getting a 75- to 85-percent lamb crop. He believes the lower buying cost of ewe lambs offsets the somewhat smaller lamb crop than he'd get from yearling ewes. Simington picks out fast-growing, big ewe lambs. And he looks on purebred, registered, mutton-type rams as a "must" for success with a sheep flock.

Val Racek, Story County, Iowa, has a different type of a sheep enterprise—fattening lambs. Hogs and poultry are the "bread-and-butter" enterprises on this 190-acre farm. Every year Racek raises around 20 litters of early pigs and heads them for the late-summer market. The 220-hen flock is the second "stand-by" enterprise. Then, to get volume in his business and use roughage, Racek fattens 1,000 to 2,000 lambs every year, depending upon the outlook for profits.

Racek buys his first bunch of lambs in August. After the lambs become accustomed to the farm by running on bluegrass pasture a few weeks, they go into the oats stubble, seeded to a red clover, sweet clover, and Hubam mixture. With good weather, by this time the legume and other green-feed growth is ample to get the lambs gaining well. Racek supplements this with corn and oats.

Then, as the corn matures, Racek's lambs range through the cornfields, too, cleaning up grass and lower leaves. Racek always tries to turn his lambs into the oats stubble and clover field early in the morning, while the dew still is on, or when wet from rain.

Some feeders hesitate over turning lambs into the cornfield. But Racek's

Pax HOG FEEDER

Can't clog. Full floating agitators distribute feed evenly to all eight doors. Adjustable feed control regulates flow. Flared feeding pan saves feed. Capacity 15, 30, 45 bushel, yet easily moved on oak skids. Weather resistant, vermin-proof steel construction will last for years.

Pax HOG FOUNTAINS

Never freeze. Heaters (choice of oil or electric) operate for 3c to 4c per day at zero. Double wall construction with 85 gallon stainless steel or galvanized inner tank. Made with two or four stainless steel, easy-to-clean drinking troughs. Positive acting automatic float valve. Ruggedly built for longer life with extra heavy steel bottom.

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Big Farm Production Ahead

The Danuser Digger is a time and labor saver, used in drilling holes for fence posts, foundations, seedling setting, transplanting, etc. Augers from 4" to 24" available. Thousands in use the world over. Write for literature pertaining to your model tractor.

DANUSER MACHINE CO.
504-08 E. Third St. Fulton, Mo.

DANUSER DIGGER

losses have been only normal. He attributes part of the reason to the supply of dry alfalfa and chopped-up straw kept before them at all times. The lambs just don't get a chance to stuff themselves on new corn.

Racek's lambs generally are ready for market in December. If the lamb-feeding outlook is good, Racek will buy another bunch of lambs to feed for the late-spring market—or some Texas wethers in the spring to feed for August sale.

A few years back, Racek decided to try raising his own lambs. But he gave it up after a couple of seasons. He just couldn't handle enough ewes to give him the needed volume for a satisfactory net farm income. So he sold the ewes and went back to buying his feeders.

Lamb feeding is more risky than cattle feeding; chances for death loss are greater and you have to be more careful in feeding. But experienced feeders usually can keep the death rate down around 3 to 5 percent.

One requirement for success in lamb feeding is the ability to judge the outlook. Western lambs usually weigh from 60 to 85 pounds when put into the feedlot and are sold at 95 to 110 pounds. This means the feeder must buy an unusually high proportion of his final sale weight—which makes lamb feeding a high-risk enterprise. A man has to be a good judge of the price outlook; he often doesn't have much margin to work on. And when lambs are ready for market, they have to be sold. That's because a few extra pounds of weight per head usually mean a price discount.

As one farm-management man put it: "To be a successful lamb feeder, you have to be like a man who feeds heavy cattle—only more so." Many of the same qualities are needed for success by both men.

Yet, there's profit in it over the years, as the experience of Val Racek and many other successful lamb feeders will testify. The turnover of capital is rapid, for the normal feeding period is from 90 to 120 days. Good feeders can put on 100 pounds of gain with around 550 pounds of hay and 450 pounds of grain. The risk and the need for care in feeding make lamb feeding a business that newcomers had best enter slowly. It may be a lot less costly to gain needed experience on a few head than a big band of feeding lambs. But because of the special knowledge and skill needed, most farmers who learn the lamb-feeding business soon make it a major enterprise on their farm. **END**

SUCCESSFUL FARMING

"I don't know if you'd call it done or finished."

Send today for FREE Circular picturing my Patented, 2-piece Teat Cup. Nothing else like it. READ HOW it milks up to 25% faster, cleaner, better, with less strippings. SEE WHY it sticks on better to ANY size or shape teat. SEE HOW it takes apart and assembles in an INSTANT—cleans at least 50% quicker. The inflation is just ONE piece and cleaned without removal from the 1-piece dent-proof "lifetime" shell. Joints are *air-tight* insuring tight stretch. So simple, so sanitary, so practical, so much BETTER that THOUSANDS of dairy farmers use my cups exclusively. But FIRST—every one of these farmers TRIED my cups 30 days on his OWN MILKER BEFORE deciding to KEEP them. I offer you the same unusual MONEY-BACK 30 DAYS MILKING TRIAL. But I ask you first to find out all the facts. Do not send money. Just send the Coupon below! If you have a DeLaval (Style B especially designed for DeLaval), McCormick-Deering, Sears, Empire, Universal, Conde, Hinman, Perfection, Riteway, or similar standard machine, write or send coupon NOW for complete FREE details. Please state name of machine you use.

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Dairymen!!! Now you can get my own, special-design INFLATIONS to fit these (and many more) shells: **Surge, DeLaval Magnetic-Speedway, Riteway, Sears, Perfection, McCormick-Deering, DeLaval Sterling** or **Economy!** Try my new, low-cost special MAES-DESIGNED INFLATIONS in your own shell—for faster, better, cleaner milking! Hurry. Mail Coupon! (If you don't know milker model number, send us one of your **old** inflations, with coupon!)

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For the positive pest control that comes with having a power sprayer exactly suited to the job — for the big economy resulting from man-hours saved in operating — for consistently low upkeep costs — farmers and fruit growers the country over turn with confidence to Myers Power Sprayers. Your Myers dealer is ready to help you select a power sprayer that squarely meets your own particular requirements. Whatever the choice, you are certain of the same absolute reliability which has long made the name Myers a sure guarantee of quality in power spraying equipment.

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Laughing

A young girl walked up to a housewife and began asking a series of questions about the small children in her home.

"Do they kick, scratch, yell, or bite?"

"No," answered the puzzled woman.

"Do they insist on sitting up late?"

"No," replied the woman. "Why are you questioning me so closely about my children? Are you taking a census?"

"No," the girl replied. "I have you down on my list as a prospective baby-sitting client."

A candidate for the state legislature was rushing to address a political meeting when a friend stopped him.

"John, what do you think of the political situation?" the man asked.

• • • • • • • • • • • • • • • • •

The Error of Our Ways

(*Calls From the News Columns*)

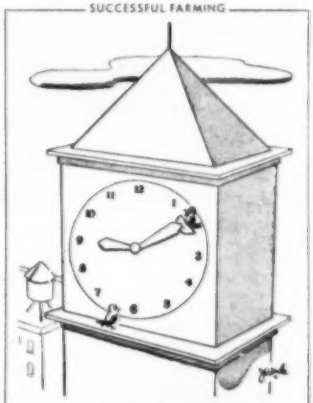
Split Personality

Short, chipper, and dapper, Womble is the life of the Utilities Commission, where he works as a rage expert.—*Wilmington (North Carolina) Sunday Star-News.*

Frustrating

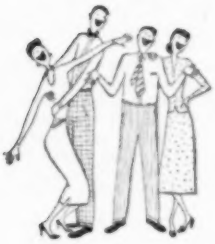
Nothing was missing from the car when Mr. M. returned, but he was unable to get his car into the ignition lock.—*Saginaw (Michigan) News.*

SUCCESSFUL FARMING



"Pick me up at 9:30."

at Life



"Don't bother me now," replied the candidate impatiently. "I've got to speak. This is no place to waste time thinking!"

"How long did it take your wife to learn to drive?"
"It'll be 10 years this fall."

There was an earthquake in a South American town which badly scared the inhabitants.

A family who lived there sent their little son to stay with an uncle in another district for safety's sake.

Two days later the parents received the following telegram:

"Am returning your boy. Send the earthquake!"

• • • • • • • • • • • • • • • •

The Great Corn State?

Found Corn in Iowa to be 55 Percent Pipe.—*Headline in Fergus Falls (Minnesota) Daily Journal.*

Parents Beware!

Members of the Cub Scouts and Brownie troops will prevent an entertainment this evening.—*Providence (Rhode Island) Evening Bulletin.*

On the Wrong Scent

The fireman suffered cuts when his nose got out of control and hurled him into a plate-glass window.—*Wabash (Indiana) Times Star.*

SUCCESSFUL FARMING

"Wow!!"

IF PETER PAIN KNOTS YOU UP WITH

Muscle Aches

FOR FAST RELIEF, rub in Ben-Gay. Contains up to 2½ times more of those two famous pain-relieving agents, methyl salicylate and menthol, than five other widely offered rub-ins!

Also for Pain due to COLDS, RHEUMATISM, HEADACHES and STRAINS. Ask for Mild Ben-Gay for Children.

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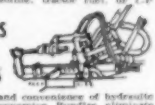

Convert now to the ease and convenience of hydraulic control. "E-E" Conversion Bundles eliminate the dangerous and strain of hand operation. Raises and lowers plow bottoms and provides adjustment of plowing depth. . . . Complete with nuts and bolts for quick and easy installation. No welding necessary.

WRITE TODAY for complete information and prices. Let Hi-Compression show you how to get full advantage from the power-potential of your tractor and make your tractor do more work in less time.

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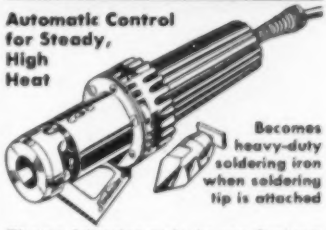
. . . by letting *Successful Farming* continue to help you solve all your farm problems.

NOW! Fast, Safe, SURE Way To Dehorn Your Calves

Sunbeam Automatic Heat Control STEWART CALF DEHORNER

Automatic Control for Steady, High Heat



Becomes heavy-duty soldering iron when soldering tip is attached

Electric dehorning with the new Sunbeam Stewart Calf Dehorner is *fast, safe* and *certain*. Dehorning can be done any time of year. No loss of blood—no open flesh wound—no bad after effects. Automatic heat control provides correct high heat for continuous operation. Handle remains cool. Dehorner is easy to manipulate. Complete with heavy duty soldering tip.

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Hastings CHROME rings give extremely long service life—actually many times longer than conventional cast iron rings. And a partial overhaul with Hastings Chrome rings costs only about one-third as much as a major overhaul involving reboring or resleeving.

The hundreds of extra hours of service you get more than offset the cost. And you get peak performance and economical operation all during these extra hours. Many repairmen and owners report two replacement installations before resleeving.

So if your tractor is using oil, or has lost its power, install Hastings Chrome rings right away. They save money, prolong tractor life, give top performance and economy. It will pay you to get Hastings rings for your cars and trucks, too.

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PISTON RINGS • SPARK PLUGS • OIL FILTERS • CASITE • DROUT

HASTINGS STEEL-VENT PISTON RINGS

TOUGH on oil-pumping
GENTLE on cylinder walls

School dollar

[*From page 50*]

which will educate its boys and girls for modern-day living. But the working methods of these farmers were sound, and their difficulties and opposition are fairly typical.

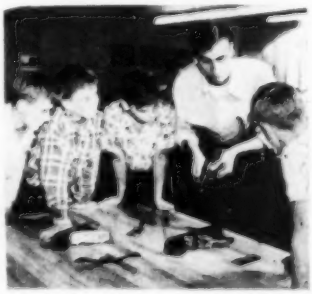
First they combined 24 small school districts around Woodstock into one well-organized unit. Formerly the school board of each district handled its own finances, bought its own equipment, worked out curriculum, and tried to interest teachers. Besides being totally inadequate, these schools were expensive to operate.

Too few pupils in some schools made for poor use of the taxpayer's dollar. Likewise, in other schools, too many pupils per teacher meant poor use of the tax dollar because of the teaching overload. The only answer was for the districts to join forces and pool resources under a central administration for economy and efficiency.

The Illinois Community School Law wasn't passed until 1947, so there was no real framework to guide their reorganization. Also, as in any ambitious project, the selling job was tremendous. Leaders began to stir up interest, plant ideas, and study. A thorough analysis of the community, its geography, and its needs was made and published.

At first the workers faced typical disinterest. Then, as district meetings became weekly events, the school issue was on everyone's lips. Interested persons wanted the facts on the financial standing, size, and valuation of their present districts, how much territory the new dis-

Multiple use of space. Folding tables pull out from the gymnasium walls, allowing space to be used also for school lunches



Shopwork is offered for boys. Westwood boasts a soundproof auditorium, home economics, facilities for art and music training

trict would include, what the tax rates would be.

Opposition grew heated and emotional: "I don't want my children traveling on a bus in all kinds of weather for two hours a day." "We'll lose all our say in school affairs; the state will take it all away from us." "We'll lose our community life."

And so it went. Arguments hard to answer. Many people were bitter, yet it was their right to disagree and be heard. Such spirited controversy is healthy. It stimulates research, careful planning, and budgeting. Districts that centralize too quickly, then breeze through their plans for new schools and grounds, will often make disappointing mistakes.

For months Mrs. Mary Endres, then county school superintendent, traveled

> **Curiosity is one of the forms of feminine bravery.**
> —*Victor Hugo*

the county armed with the facts. She guided the study, worked with the state board of education, conferred with key people in each neighborhood, talked with as many parents, school officials, and teachers as possible.

A former rural teacher, Mary Endres had an interest in better education for farm children which had led her to study and observe the difficult problems firsthand. Probably more than any one person, she showed the people the need for better schools and pushed the building project to completion.

But the final decisions, on the actual size of the new district and the election of the new seven-member school board which replaced the former 72 members, were made by the people themselves.

The new district was formed in 1946. Bitter controversy continued to grow the following year. "An educational council, made up of parents elected from each community, was born out of desperation," Mrs. Endres recalls. "At first, council meetings became outlets where the people could express their gripes, places to get information to carry back to the community. Then the council grew into an advisory group for the school board. The members studied building sites, visited new community schools, talked with architects, building experts, and consultant services, studied reams of literature."

In 1949 the first spadeful of dirt was turned and construction began. The same year, a 20-year, $650,000 bond issue was passed. This purchased the sites, took care of building materials, architect's fees, and the initial equipment for both schools.

At the beginning of the 1950-51 school year, 425 children walked through the doors of Greenwood and Westwood. The schools are centrally located in the 110-square-mile district. Despite some bad roads, an efficient bus system has been worked out. No child is on a bus more than 50 minutes—most of them not more than 20 minutes—and special attention is given to the 6-year-olds.

Through it all, people were kept informed, half-truths squelched with facts. "Cure for opposition is to put the people who criticize to work," was Mrs. Endres' psychology. "Many of those who fought

[*Turn to page 154*

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You'll avoid "Laxative Lag"—that feeling of discomfort that continues for hours until ordinary, slow-acting laxatives bring relief. Here's how . . .

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In the evening . . . take gentle, speedy Sal Hepatica one half-hour before supper—get relief before bedtime.

Sal Hepatica is an all-purpose, antacid laxative. Sweetens sour stomach. It is a recommended laxative by more than half the doctors interviewed in national survey.

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Antacid Laxative

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has big red fruits as early as July 4th. Regular price 15c pkt. To introduce our quality seeds, we will send a trial pkt. of this Tomato, Tendercrop Carrot, All Cream Lettuce, Earliest Radishes and large pkt. of **JUNG'S FAVORITE FLOWERS** beautiful Summer glory that blooms from early summer 'til frost. All for 10c, in Canada 25c . . . with **ALL FOR 10¢** Full Color Catalog of bargains in Seeds, Plants, Shrubs, Hybrid Corn and Certified Seed Grain. Coupons for Rare Premiums in each catalog.

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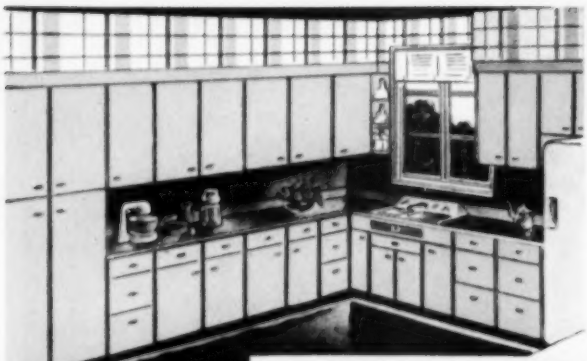

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School dollar

[*From page 153*]

hardest against change are now our best workers.

"Many people were unfamiliar with the new one-story-type schools and had to be sold on their advantages," she went on. "Actually, it's costing us no more to operate Westwood and Greenwood than it would the 24 obsolete one-room schools today, if they offered the same kind of program."

The buildings are practical. At the same time, they appeal to children with their well-lighted, spacious classrooms, lunchroom facilities, kindergartens, and gymnasiums. Westwood also provides for science, home arts, shops, and craftwork for seventh and eighth graders, and gives special work for handicapped children.

The schools were planned also to meet the interests and needs of adults. Last year 272 various meetings were held at Westwood. Farm groups meet for educational movies and discussions in the auditorium. The gymnasium is used in the evenings for rural-youth basketball, square dancing, and parties. The library and workshop are in constant demand. Child-guidance study groups are held weekly for parents who work closely with the teachers in understanding and guiding each child.

The larger schools have not taken away democratic control by the community. Parents proudly feel responsibility for the schools' successful operation. Through representation on the educational council, the parents help decide educational policies and programs.

The United States Office of Education estimates that within the next 10 years $7 billion must be spent on school buildings. New construction is needed to take care of increased school enrollments, to provide new consolidated buildings, to replace obsolete and unsafe buildings. The biggest part of this construction is needed in farm communities.

Mary Endres, now superintendent of Westwood, is concerned about the many poorly constructed school buildings now going up. "Many are expensive—more expensive by far than Westwood," was her comment. "Yet they're not conducive to the way a child learns. Some are ornate; others are poorly planned and don't meet the children's health needs.

SUCCESSFUL FARMING

"... it's easy; I spin the bottle and the one of us it points to gets kissed."

The people aren't getting their money's worth.

"That's why it is so important for parents and teachers and school-board members to study and identify the needs of their community before they barge into construction. That's why it is so important to choose an architect who has specialized in schoolhouse planning, who understands how children learn."

Like most worthwhile changes, adjusting our schools to the needs of our times costs money. A small school district can't provide a complete educational program even if it taxes itself to the limit. The best answer is to join with other districts so resources and tax dollars can be pooled.

To reorganize and plan a long-range building program wisely, school trustees and parents should become familiar with the best plans being followed by other communities. A wealth of information is available, and you'll find rural educators eager to help you.

If your community needs better schools, write to the office of your state superintendent of rural schools, to the state teachers' association, to the state department of public instruction. Secure help also from the United States Office of Education and from the rural department of the National Education Association in Washington, D. C. END

His mother

She was surrounded by her
thoughts of him
When she was old: the son whom
she had borne,
To hold, it seemed, so brief an
interim.
The little boy who heard a distant
horn
Sounding on starlit nights beyond
their hill,
And soon the man who saw his
chosen star
Rise in another sky, who longed
to fill
Her hands with lovely tokens
from afar.
She pointed to a vase, a gilded
chair,
And all that he had sent to fill
his place.
Yet, for all this, the room was
starkly bare
Of everything save visions of his
face;
And though he filled her room
with many lands,
For lack of him she folded empty
hands.

—*Isabelle Bryans Longfellow*

Human crumbles

Of all the bitter irony,
I think the worst to take
Is when your next-door neighbor
Requests your recipe for cake.

You proudly beam, and give her
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Then you find she bakes it better
Than you can do yourself.

—*Mrs. Paul Godkin*

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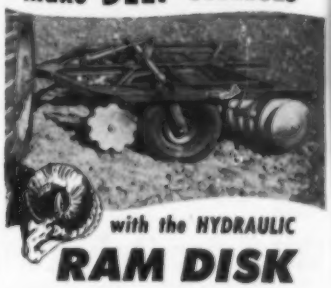

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Vegetables for 1952

All gardeners swear by a few favorites for immediate use, canning, or freezing. Certainly no one would disturb their faith in a favorite. But it seems quite proper for any confirmed gardener to look over his neighbor's fence now and then for something new.

For something to watch with special interest, try the All-America vegetable list for 1952. There is a new, all-purpose snap bean—Wade—so good the committee deemed it worthy of a gold medal. The other gold-medal selection was Salad Bowl, a loose-leaf lettuce.

In the silver-medal awards our old friend spinach found an honored place. The America variety is highly heat-resistant and bears heavier than any other now generally available. The Cushaw-type pumpkin called Allneck will delight the most critical vegetable lover. It is large, solid-fleshed, and very productive.

With all the new introductions of muskmelons, it is astonishing to find that it is still possible to discover something new. Golden Delight qualified for a bronze medal for its vigorous growth and excellent flavor.

And just to remind you of the 1951 selections, in case you have not tried them, consider the new hybrid sweet corn, Iochief. If you are a lover of watermelon, then the New Hampshire Midget, which is icebox size, ought not to escape your tests.

Praises still ring for the first hybrid cabbage, known as O. S. Cross. It has proved an outstanding variety for kraut and canning purposes. Last year many of the O. S. Cross plantings survived drouths successfully, where other varieties were damaged. The Urbana tomato, developed at the University of Illinois, is especially adapted to rich soils and is high in nitrogen content. It is about as wilt-resistant as Marglobe, and looks like a winner for canning and shipping, as well as for use in fertile gardens.

No variety has yet appeared that could successfully withstand weeds and insects. But the plant breeders are getting closer and closer to such an ideal plant. The patient gardener will keep testing in the hopes of finding it eventually. END

Card file for cows

An excellent system of keeping a barn record of each cow in the herd is being used by Lawrence Van Cleef of Seneca Falls, New York. Lawrence has a 4"x6" card file of each cow in the herd, showing breeding date, freshening date, date dry, condition, and date due. He also is in D.H.I.A. testing, but the card system used in the barn helps him considerably when referring to any particular cow.

How to build a weatherproof root cellar

By Walter Hunt

Last year, Victor Sorby and his sons, of Hennepin County, Minnesota, built a weatherproof storage cellar for all the fruits and vegetables they raise. And they built it so they would get a minimum amount of spoilage. They used the cellar last winter, and all the vegetables and fruit kept in good condition, down to the last apple and potato. Here are the building details of the cellar.

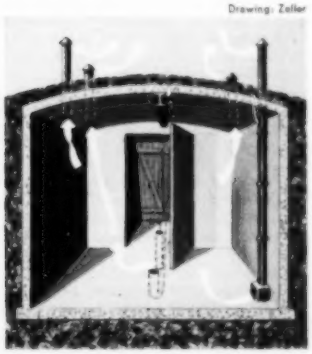
Cost of the Sorby root cellar was under $90. It was built near the house, on a well-drained slope. The 6" reinforced concrete walls measure 6½' from the floor to the roof. Larger footings were made below the surface of the floor. The 8" reinforced, arched concrete roof is 7½' above the floor in the center. A 6" steel beam (see drawing below) resting on the rear and front walls helps support the roof in the center. The Sorbys want the fruit and vegetable cellar to last a long time, so they built it well.

The floor consists of 4" of fine sand over clay. This floor helps maintain the correct moisture content of the air. Air moisture is important for good food storage. A vestibule was built at the entrance to the cellar to cut down drafts when the door was opened and closed. The vestibule cuts down the loss of cool air, also.

The cellar is 10'x12'. Three 4" ventilators in the roof let the warm air escape. A fourth 4" roof ventilator extends to the floor inside and serves as a fresh-air inlet. This ventilator is made of draintile and is supplemented by tile under the floor. The tile under the floor has an outlet outside the cellar. The floor tile has openings in the vestibule and cellar floors. All ventilators are screened to keep out insects and rodents.

The cellar was easy to build and the cost was low. It's paying off in more and better fruit and vegetables all during the winter months.

Drawing: Zeller



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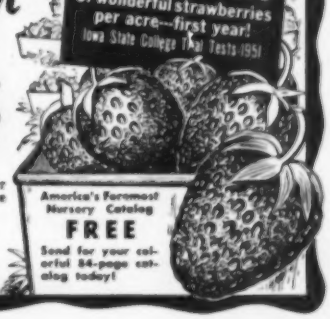

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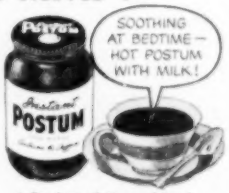

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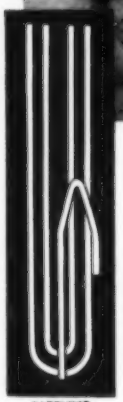

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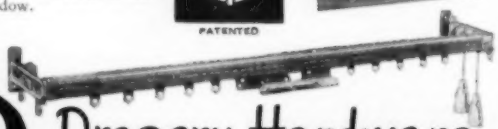

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Green-thumb guide

House plants can add beauty to your home—if kept in the peak of condition. Contrary to what you may hear, you don't need a "green thumb" to grow house plants successfully. Regular attention to the following five basic rules will keep most plants healthy:

1. Give your plants enough light. Most are tolerant enough to grow well in a south, east, or west window, but not all of them need the same amount of light. In general, flowering plants require the full sunshine of a south window. Most plants raised for their green foliage alone belong in a north window. Those with colored foliage require the moderate amount of sunlight of an east or west window.

2. Keep your plants on the cool side. A temperature of 65 to 70 degrees is a perfect daytime temperature for house plants, and night temperatures should drop 5 or 10 degrees as they do in nature.

3. Test the feel of the soil daily to see if your plants need watering. Beware of overwatering. When the topsoil feels dry to the touch and the clay pot and soil appear light, water generously until the excess water runs into the pot saucer. Remove this extra water unless the plant is one of the few—calla, cyclamen, or African-violet—which thrive with wet feet.

4. Be sure there is moisture in the air as well as in the soil. Plants need the air's moisture as a source of water; many modern heating systems tend to "dry out" the air. A weekly spraying with a bulb syringe or house-plant sprayer will refresh the top leaves. A saucer filled with pebbles to hold water under the pot, or vases of vines growing in water placed near potted plants, are other devices.

5. Give your plants plenty of fresh air, but don't let them stand in a draft. In cold weather, open the windows for a few minutes each day, but don't let the plants stand in wind or get chilled.

Soil and fertilizer are vital elements to healthy house plants, but don't be in a hurry to add fertilizer to a newly started plant. Wait until the roots fill the pot, or, as a general rule, don't fertilize for the first three months of growth. Fertilize once a month thereafter.

Mix your own potting soil to fit the plant's needs. A good general potting mixture is a combination of 2 parts good garden soil, 1 part of coarse builders' sand, and 1 part oak-leafmold, peatmoss, or humus. An organic potting mixture for begonias, ferns, African-violets, Christ-

mas cacti, and other succulents is 2 parts of oak-leafmold, peatmoss, or humus, 1 part good garden soil, and 1 part coarse builders' sand mixed together. The garden soil selected for these mixtures should be loose and soft; not claylike. If soil is thoroughly dry, it will be easy to crumble and mix with sand and other ingredients of the potting mixture.

The following plants require the full sun of a south window:

Amaryllis. Doesn't require much water and grows best in a sand-and-leafmold soil to which fertilizer should be added once a month.

Cacti. Require little water and grow well in sandy soil with good drainage.

Coleus. Is most colorful if buds are pinched off as they appear and plant is given plenty of water and good drainage.

Geraniums. Need lots of sun and infrequent—but thorough—soakings of water when soil dries out completely.

Wax begonia. Should be kept in a small pot of organic-mixture soil and watered infrequently.

Following plants will do best in indirect sun of north window:

Aspidistra: Should be kept in a small pot of general potting mixture with good drainage. Wash leaves occasionally with soapsuds and rinse well.

Chinese evergreen. Grows in either water or soil. If grown in soil, the roots must completely fill the pot.

Dieffenbachia. Needs warmth, moisture, and shade to simulate tropical climate.

Ferns. Grow well in rich, organic soil fertilized with leafmold or peatmoss. Keep the soil moist, provide good drainage, and repot once a year.

Ficus fig. Water three times a week; occasionally the whole pot should be soaked in a pail of water. Fertilize monthly.

Ivy. Needs lots of fresh air without drafts. Pot in a general potting mixture with peatmoss or leafmold, and spray foliage twice a week with cold water.

Philodendron. Requires a small pot of organic potting mixture, good drainage.

Pickaback. Should be kept out of direct sun and kept moist.

Sansevieria. Needs regular applications of fertilizer, but little watering.

Swiss-cheese plant. Should have its foliage sprayed with warm water daily. Keep pot on dish of moist pebbles.

The following grow best in an east or west window which gets morning or afternoon sun:

African-violet. Should be kept on dish of moist pebbles and potted in an oversize pot of organic mixture to which a teaspoon of limestone has been added. For blooms, place directly under an electric light for a couple of hours each day. When leaves are dusty, wash with warm water and dry with soft tissue. Use complete fertilizer once a month.

Begonia. Should be watered from below, but not overwatered. Fill the bottom of the pot with pebbles to insure moisture and good drainage.

Dracaena. Should be watered twice a week; spray foliage once a week with cold water to prevent red spider. Use a general potting mixture with complete fertilizer added when new growth starts.

Arrowroot. Should be potted in organic mixture of soil which is kept moist. Surrounding air should be kept moist and warm. Spray plant daily with water. END

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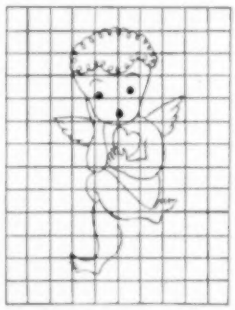
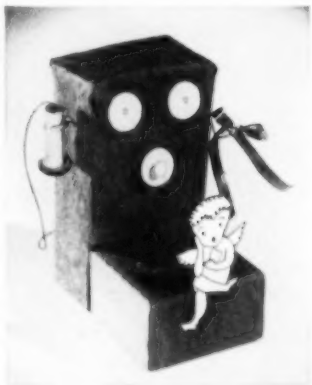
Pull out match drawer far enough to slip second matchbox into the opening.

Cover with brown crepe paper. Cut two paper circles and use as bells. Cover end of a paper fastener with crepe paper; run fastener through a third circle and into box for the mouthpiece. Make receiver hook from two 2-inch lengths of wire. Insert into box and bend to hold receiver; cover wire with crepe paper. Then roll a piece of crepe paper to a 3/8-inch thickness and place a paper circle over the end to form receiver.

Make telephone crank from a paper clip with a ribbon added for special decoration. Add a piece of yarn for the cord.



Mark off 1/4-inch squares on an area 2 1/2x3 1/4 inches; trace above pattern to make Cupid to scale



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1. Fabric lamp shades, if colorfast and sewed, may be washed. Dip shade quickly in and out of lukewarm suds, rubbing soiled spots with a soft sponge. Use a mild soap

2. Rinse in lukewarm water by dipping shade in and out. Change rinsing waters; continue rinsing until water stays clear

3. Wipe off excess moisture with a clean turkish towel, drying quickly so the wire frame doesn't leave rust marks on the shade

4. Hang shade on line by its wire and a clothespin, or replace on lamp. Dry in warm room away from direct heat. END

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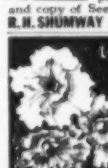

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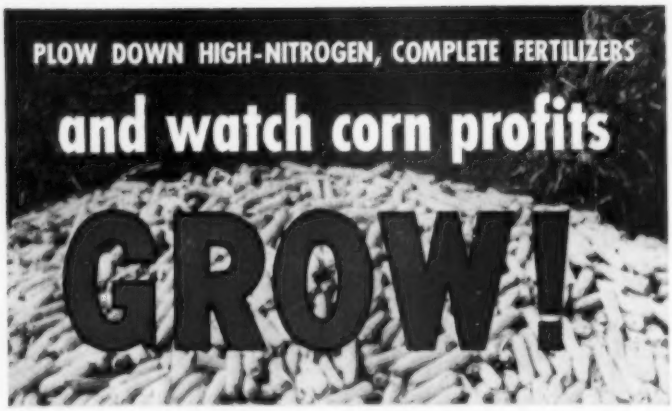

IT PAYS to feed your corn crop from START TO FINISH! In the past, most corn growers have been doing a good job of "starting the crop," by applying 150 to 300 pounds of fertilizer per acre, banded at planting time. That's an important and profitable investment. But it's not enough to produce big yields.

Starting the crop is only half the battle. You must GROW it, too! And that takes plenty of nitrogen, phosphorus and potash—the plant foods contained in well-balanced fertilizers, such as 8-8-8 and 10-10-10. This year plow down, or drill deeply before planting, 500 to 1,000 pounds of 8-8-8 or 10-10-10 fertilizer per acre, and WATCH CORN PROFITS GROW! When you put these nitrogen-rich fertilizers down deep in soil moisture where corn roots feed, the plant foods start your crop and stay with it!

Liberal application of 8-8-8 or 10-10-10, plowed or drilled deep, will keep your corn green and growing throughout the season and produce an abundance of well-filled, plump ears. Well-fertilized corn matures earlier and yields many more bushels of better quality corn with a much higher protein content.

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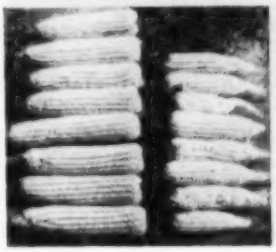

Left: Corn fertilized with 100 pounds each of nitrogen, phosphorus and potash—equivalent to 1,000 pounds of 10-10-10 per acre.
Actual yield: 99 bushels of shelled corn per acre.

Right: Corn fertilized with 100 pounds each of phosphorus and potash—but NO NITROGEN.
Actual yield: 57 bushels of shelled corn per acre.

100 pounds of nitrogen increased the corn yield 42 bushels per acre—and improved quality of the entire crop.

Note: All corn received starter fertilizer in addition to the plowdown fertilizer indicated.

Set the stage for a bigger corn crop on your farm this year. Pick at least 100 bushels of corn per acre—*why be satisfied with less!* Wise and liberal use of fertilizer doubles the size of your farm by doubling crop yields. Place your order now with your regular fertilizer supplier for 8-8-8, 10-10-10 and other corn fertilizer grades. Take immediate delivery.

It usually takes two pounds of nitrogen to grow one bushel of corn. Corn may require additional nitrogen over and above that contained in high-nitrogen, complete fertilizers. This is especially true on land growing second-year corn or on the lighter type soils. Where extra nitrogen is needed, plow down A-N-L* Nitrogen Fertilizer before planting or apply A-N-L Nitrogen Fertilizer as a side-dressing.

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THE GROWTH ELEMENT IN FERTILIZERS

How's the atmosphere at your house?

By Anne Stone Schorr

Most of us homemakers are blessed with woman's most important possession—a good guy! Because of him we have become rather deft at darning socks, baking pies, making over last year's hat and last year's face. But most of us could do with more thought on such important intangibles as the expressions on our faces, the tones of our voices, the atmosphere we create.

Atmosphere is 100 percent in the housewife's domain; every now and then it should be examined for bugs and sunned and aired. And more important than what we do say, is what we don't; and how we don't say it. It is true that "you cain't hold a man with a gun," and it follows that you can't keep him content with a flair for invective and reproach.

When Husband comes in from the fields for supper, it is wise to remember that he is tired. Very well, so are we. But being male, he's *supposed* to be "tireder" than his wife. Since most of us have little conversational contact during the day, we are poised to let loose a torrent of talk and expect a full account of "what happened today" in exchange. Men have the strange conviction that mealtime is for eating. They are apt to find nothing worthy of reporting, even if they've cultivated 100 acres and seen six ring-tailed baboons.

My husband, essentially normal, usually reserves such interesting tidbits for breaking up what would otherwise be my first good sleep of the night. It would be straining credulity to pretend to be pleased, but being a woman, it's not hard to be curious.

Wives would rather talk than eat, but when necessary they can do both simultaneously with great skill. Until his digestive juices have something to work on, the average husband is inattentive, if not actually hostile, to small talk.

We must not resent their hobbies. Most of us read and applaud words of praise on the importance of avocations, but may remark plaintively something like—"But my husband builds things out of toothpicks. Now I ask you: What good can come of that?" Perhaps he won't build up his muscles, but if he can construct a better toothpick tower than the next man, it's supposed to do something big for his ego. My husband's hobby happens to be sleeping. Before giving in to this habit of his, I went about slamming doors, which only caused him to exclaim and go at it twice as hard and just as noisily. The ex-

ercise he obtains from this evening sport enables him to drop into bed and get a good night's sleep.

And while we're resolving, let's attempt to be kind to our man's daydreams. Perhaps for 10 years he's promised to build an addition to the house, and by now both of you know he's stuck with it. If you can abstain from pointing this out to him in suffering tones, you, and not Helen of Troy, should be acclaimed in sonnets.

An embittered great-aunt of mine made her whole married life insupportable to herself, my great-uncle, and everyone within hearing distance, because he failed to carry out his given word on the matter of a brass bed knob. One mysteriously disappeared, leaving only three whole and one beheaded post. This filled Great-aunt Fronia with woe out of all proportion to its importance.

Her infatuated bridegroom rashly promised to find a matching knob. He really tried, but it was of unique pattern. The manufacturer must have created just one such quadruple horror and must have thrown away the mold in shame.

Whenever there was a hot spell or a cold spell, or my great-aunt's sciatica bothered her, she lit into her spouse about his broken promise. No doubt a man of stronger character would have taken a crowbar and demolished the entire bedstead. But like many of his kind, he just suffered the knob's absence for 50 years.

My husband's favorite wishful thinking is to keep a stable of riding horses. To date all he lacks is the land, the stables, the horses, and the money. It's not part of my duty to call to his attention that ancient ladies and gentlemen seldom canter gaily down woodland glades in a soft spring rain, yelling, "Tally-ho," as they clear hedges and gates.

When he gets wound up on this familiar theme, I mentally picture ancient crones, sway-backed nags, and bottles of liniment. This way, we both have fun.

Men, being born idealistic, simply build big daydreams. And they have such a lovely time, especially when they're being defeated by the weather, the taxes, or the state of the world. We women make too much of a virtue out of good memories. We should cultivate reflective forgetting.

I hope I haven't sold myself or you on the idea that we wives should lie down like rugs and invite any mere male to walk on us. Nothing would be more frustrating than a wife who never lost her temper, never got unreasonable, never argued for the sheer exhilaration of it. That sounds more like the description of a sheep. While some men like sheep to the extent of keeping pastures full of them, they never marry them. We should simply take stock of ourselves and see that these feminine tendencies don't take over. But they should be thrown in now and then for spice.

There are times when we'll sit and look across the table at the best and kindest husband in the world and hate his ancestors, the way his ears sit on his head, and the noise his fork makes scraping across the plate. That's just part of marriage, we tell ourselves—if we're smart enough to take statistics seriously. But let's not go on about it—not too loud or long or often. Let's keep the atmosphere clear, warm, and pleasant, with enough humor to make it invigorating. **END**

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All Lederle veterinary vaccines and bacterins are produced with the same care and supervision that are given to Lederle biologicals for human use. For best results ROVAC should be used by, or on the prescription of, a veterinarian. Consult your veterinarian often for help in maintaining the best management and disease control procedures.

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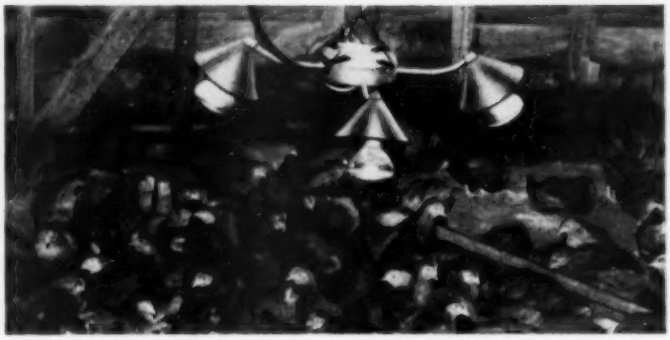


Guards are removed when chicks are 2 or 3 weeks old. The lamps are suspended 20 inches from the floor for small chicks and are gradually raised as chicks grow older. Each 4-lamp unit will handle between 350 and 400 chicks. Two-circuit wiring is used

Use heat lamps for

By W. D. Bashore

Heat lamps are just the ticket for raising broilers, according to Marcellus Badskey, Whitley County, Indiana. Badskey was the first farmer in his community to install heat lamps in his broiler house.

Infrared heating has been used on a small scale by both farmers and universities for several years. But only during the past two years have heat lamps really come into their own.

An experimental bulletin started Badskey thinking about heat lamps. Early in September, 1950, Badskey walked into his local electric company's office and told them his situation. He had 3,500 chicks coming September 20 and wanted to raise them under infrared lamps in the new wing of his broiler house.

"It looked as if the lamps were a good idea," Badskey said, "but we had to jump fast. Heat lamps were so new around here that no one knew much about them."

Electric-company advisers sat down with Badskey and studied the problem. Then they inspected Badskey's home and farm and set up a wiring plan.

A 100-ampere metering pole was installed in the barnyard with underground wires running to a 100-ampere entrance to the broiler house. Underground service was also run to the home and overhead wires to the barn.

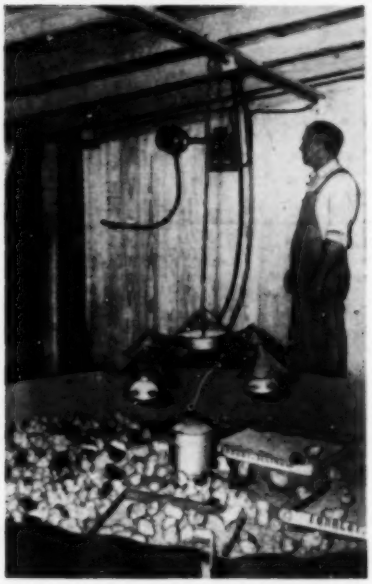
A line of 4-lamp units was installed down each side of Badskey's 30x80-foot broiler house. Five commercial units were used on each side of the house. A home-made unit was also added to one side. The units hang from the ceiling by chains.

Two 125-watt lamps in each unit were wired on one circuit and two 250-watt lamps on another. Three-wire cable was used for the 2-circuit wiring.

With the 2-circuit wiring, Badskey can easily control the temperature. If less heat is required, 2 lamps in each unit can be shut off at the inside box. (Work is being carried on by researchers for thermostatic control of such a system.)

The temperature in the broiler house is also controlled by raising and lowering the units. For baby chicks, the units are suspended about 20 inches from the floor,

◆ **Interior of broiler house** shows arrangement of lamps and pens when chicks are a few days old. Four heat lamps are hung above each temporary cardboard pen



Meter and fuse box are located inside the broiler house. Each unit has two 125-watt and two 250-watt lamps for heating

broilers

with the lamps turned slightly outward. This results in a brooding space about 5 feet in diameter. Each unit can handle between 350 and 400 chicks. Authorities figure between 75 and 100 chicks per lamp.

Corrugated cardboard is used as a chick guard to hold the chicks under the lamps. As the chicks grow, the cardboard ring is enlarged, and at 2 or 3 weeks it is removed.

The central waterers are removed at this time also, and thereafter the chicks get their water from two 60-foot troughs running down each side of the house.

Heat-lamp experts suggest that the units be raised 2 or 3 inches each week as the chicks grow and require less heat. This also widens the circle of heat to make room for the chicks as they get larger. Although Badskey says this is generally true, he adds that it is mostly a matter of judgment and weather. Sometimes the heat-lamp units have to be lowered to counteract a sudden cold snap.

[*Turn to page 166*

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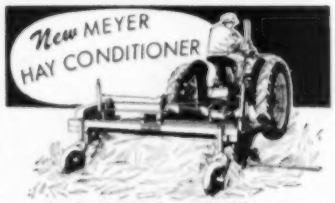

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Heat lamps for broilers

[*From page 165*]

"The chicks are their own best thermometers," he said. "They seem to find the spot where the temperature suits them best. The heat is greatest directly under the rays of the lamps and decreases gradually away from them. Since chicks vary widely in their choice of temperatures, there is practically no crowding under the lamps."

According to this broiler raiser, heat lamps are inexpensive to install and operate. Two broods were raised under the lamps on the Badskey farm the first year. One brood numbered 3,500 chicks and the other totaled 4,000.

The first brood was started in September. When marketed 14 weeks later, they had used a total of 2,500 kwh at 2 cents an hour. That totaled $50, or 1½ cents per bird for heat cost.

"I don't usually keep the birds that long," Badskey explained, "but the market wasn't so good at the time the birds were ready. Usually, the birds are sold at 10 to 12 weeks of age. Some have hit 3 pounds in a little over 7 weeks."

The next batch of 4,000 was brooded during the record-breaking cold wave of January and February. Operating costs rose to 5 cents a bird. But Badskey said a load was taken off his mind when, during a siege of 17-below-zero temperature, the thermometers in the broiler house registered a comfortable 52 to 55 degrees. The only extra work involved was checking the house more often. No supplemental heat was used.

Mortality was only slightly over 1½ percent on the first batch of 3,500 chicks. But bronchitis hit the second batch on the third day and took a toll of almost 6 percent. However, Badskey believes the heat lamps might have been responsible for keeping his loss at a minimum. Some poultrymen in the area lost as high as 50 to 70 percent of their broods of young chicks by bronchitis.

When the chicks are 3 weeks old, Badskey replaces the 250-watt lamps with 125-watt bulbs. Less heat is necessary at this stage and the lower wattage cuts costs.

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The lamps operate on low voltage, so their life is fairly long.

None of the lamps on this farm has been replaced since they were installed. *Where water is likely to hit the lamps, heat-resistant bulbs should be used.* Quite a number of farm fires have been caused by exploding heat lamps. Keep the lamps away from animals. Either build guards around them or hang them out of reach. Don't take chances.

Badskey is sold on using the lamps for brooding, but he's also enthusiastic about another advantage. The units are easy to store when not in use. His units are simply hooked to the ceiling by the last link in the chain.

The total cost of the Badskey installation was $450. This included the metering pole, 100-ampere box, 10 outlets in the broiler house, and the units and wiring. The 10 units soon to be added to the other wing of the house will cost an estimated $300. The 100 amperes can handle between 20 and 25 units.

The central metering pole serves Badskey's entire farm and home. It operates a milk cooler, water pump, water heater, milking machine, home freezer, and other equipment in addition to the heat-lamp system.

"I imagine the cost of installation will go down as more farmers begin using heat lamps," Badskey said. "The first fellow into a new field usually has higher costs than those entering later."

In addition to the regular equipment, Badskey invested $400 in a 6,500-watt stand-by generator in the event of a power failure. His tractor powers the generator and although he hasn't had to use it yet, he considers it good insurance.

According to this farmer, his chicks gained weight faster under the heat lamps. He started 1,800 chicks in the other wing of the building without heat lamps. At the same time, he started 1,700 under the lamps. He kept no record of the separate amounts of feed fed the two broods, but the lamp-brooded chicks had put on ½ pound more gain than the others at the end of the feeding period.

From every poultry-raising standpoint, Badskey considers his investment in heat lamps a good one. But he makes one point clear—make sure your building is wired correctly. If it isn't wired right, and heat lamps are used, you're asking for expensive trouble. Have a good electrician wire your building or inspect your old wiring before you connect a single lamp. His charges won't amount to a hill of beans compared to what it might cost you to replace a building destroyed by fire. END

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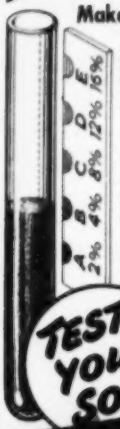

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Livestock

Another clamp on brucellosis

All male pigs held for breeding purposes by Illinois swine breeders must be free of brucellosis before they can be sold. This provision is part of a new law passed by the 1951 Illinois Legislature. It states that no person shall sell, or offer to sell, any herd boar, or his services, for breeding purposes unless the animal has been tested by a licensed and accredited veterinarian and found to be free of brucellosis. The test must be made within 30 days before the sale.

The law also requires that this certificate be shown to anyone buying the services of the boar and given to any new owner of the animal.

Ladino clover top lamb pasture

Ladino clover topped other legumes and grasses in putting gain on lambs in the Michigan State College pasture-comparison tests. Alta fescue was at the bottom. Nine 2-acre fields of various types and combinations of pasture crops were tested. On each of the 9 fields, 10 lambs were grazed.

Results at the end of 2 months showed that a field of Ladino-brome produced 273 pounds of lamb to the acre. A field of birdsfoot trefoil-and-bromegrass combination yielded 231 pounds of lamb in 2 months. The brome-alfalfa pasture produced 182 pounds of gain, and the alta fescue field was low with only 110 pounds of gain.—*W. E. S., Michigan.*

Big litters pay

The old idea that pigs from a large litter don't do as well as those from a small or average litter is wrong, according to Harry Moxley, Michigan State College swine specialist. To prove his point, Moxley refers to the records from 2,296 litters of nearly 20,000 pigs entered in the Michigan State College sow-testing project during the past 6 years.

Pigs from litters of 11 or more averaged 32.8 pounds at 56 days. Those from litters of 7 pigs averaged 33.1 pounds at weaning age. However, the total litter weight for the large litter was nearly 375 pounds compared with only 233 pounds for the 7-pig litter.—*W. E. S., Michigan.*

Three lamb crops in two years

Here's a way to boost your lamb crop without increasing the number of ewes. Two years ago, George Ziegler, Columbiana County, Ohio, decided to do some experimenting and found that his ewes could be bred to produce 3 lambs over a 2-year stretch, instead of the universally accepted lamb per year. Now he is doing a flourishing lamb business, getting lambs to market at top prices without the risk of a sudden price fall due to a surplus of fat lambs.

Just recently, Ziegler was getting 42 to 51 cents per pound for his finely finished lambs when the regular market was paying from 34 to 35 cents. And the demand for his lambs at these prices exceeded his supply.

Ziegler keeps the lambs with the ewes until they are marketed at 4 months of

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age. As soon as a lamb will eat grain, it is full-fed. He has found that lambs kept with the ewes can eat an abundance of feed without overeating. The pens are kept lighted at night to encourage the lambs to eat whenever they are hungry. The lambs gain about a pound per day while on grain feeding.

The ewes are rebred while the lambs are still suckling. Ziegler experiences no trouble in getting his ewes bred while suckling lambs are at their sides.

Neither the ewes nor bucks are given special attention at breeding time. Ziegler uses 20 rams to breed his ewes. The ewes are divided into flocks and the bucks are rotated monthly in different flocks. The bucks run free with the ewes and serve them as soon as they come into heat. However, he does pay special attention to the vigor of the bucks to insure prompt serving of the ewes. Should the demand on the bucks be too great, Ziegler immediately buys more bucks to take care of the extra load and assure prompt breeding of the ewes.

When most sheep raisers are busy with lambing during February and March, Ziegler has hothouse lambs ready for market. Ewes bred in April and May lamb the following fall. Lambs are kept on mothers' milk and grain until sold.

Male lambs are castrated and the lamb tails are docked by use of the rubber-band method. He has a mixed flock of Shropshires, Merinos, Corriedales, and Hampshires. Ziegler disregards the wool qualities and concentrates only on the lambs. Feed for his entire flock of 1,000 head of ewes, bucks, and lambs comes from his 190-acre farm.—*J. K., Ohio.*

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See Me On Page 145

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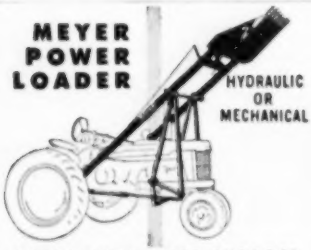

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Veterinary

Don't depend entirely on remedies

The other day we saw some runty pigs which hadn't been doing well. The owner was sure they weren't wormy, as he had treated them with sodium fluoride at regular intervals since weaning. The sodium fluoride got rid of the roundworms all right, but the parasites were still to blame for the porkers' poor condition.

The worms had seriously damaged the lungs and liver while in the larval stage and circulating in the blood. As a result, most of the pigs were stunted and many suffered from chronic pneumonia. All were left with a lowered resistance to other diseases.

Sodium fluoride can't repair damage already done, so don't depend entirely on medicines to raise healthy pigs. Sanitation and preventive measures are still the most important parts of a worm-control program.

Cows needed iodine

An occasional weak and puny calf at birth can be expected on any farm. However, one owner reported all his calves were born in this condition and most of them died within a few hours. Many of the calves had swollen throats caused by enlarged thyroid glands.

Such trouble is due to an iodine deficiency in the ration of the pregnant dam. This deficiency can be avoided by supplying iodized salt, free-choice, the year round. Iodine deficiency is no longer confined to an area known as the "Goiter Belt" in the Northwest and around the Great Lakes. It has been reported in all parts of the United States, so make sure your cows get all the iodine they need.

Feed ewes for bigger lamb crop

A few years back we were told that "flushing" ewes before breeding would increase the number of lambs. Now it appears that the rations the ewes receive after breeding may also influence the number of lambs born.

Experimental data from the South Dakota and Montana experiment stations supports this feeding practice. The better-fed ewes produced up to 37 percent more lambs than their sisters which didn't get good rations. As yet, the reason for the increase in the lamb crop isn't known. Possibly other factors are involved. However, several extra sets of twins and fewer dry ewes next spring will more than pay you for the feed needed to keep the ewes in good condition.

Spoiled sweet clover dangerous

Recently we heard of a cow which had calved during the night and both the cow and the calf were found dead in the maternity pen the next morning. The trouble was traced back to a ration containing spoiled sweet clover. A compound in the spoiled sweet clover kept the blood from clotting in a normal manner. As a result, the cow bled to death when the navel cord was broken. The calf also died, as the dangerous compound was passed on to the unborn young.

Not all sweet clover will keep blood from clotting, and the worst-looking hay may be the least dangerous. Other farm animals are also affected in the same manner, so be on the lookout for trouble when feeding sweet-clover hay.

Johne's disease caused diarrhea

The other day we saw a rough-coated, sunken-eyed cow which was little more than a walking skeleton. Her skinny condition wasn't too surprising, as she had been afflicted with a chronic diarrhea for nearly a year. At first there were no other symptoms, and the cow ate and milked normally. However, she lost weight steadily, and both her appetite and milk production dropped.

At the time of our call, she was nearly dead, and so weak she could barely get up. Testing showed the cow had Johne's disease, a contagious ailment often unrecognized on American farms.

Don't forget foot trimming

We recently looked at a bull reportedly suffering from foot rot. However, we found an entirely different kind of trouble. Part of the sole had separated from the bottom of the hoof and the resultant crack was wedged full of foreign material. A good foot-trimming job resulted in prompt improvement.

This sort of thing is common in bulls during the winter, as they usually are confined to pens and their hoofs have little or no chance to wear down in a normal manner.

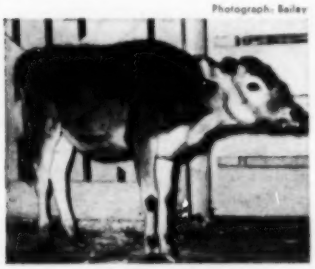
What's the trouble here?

The calf pictured below was first noted breathing fast and acting a bit dull. It wasn't really sick; it ate well and moved about normally. However, it soon began to cough occasionally, and the rate of breathing increased until the animal was almost panting. Then it began frothing at the mouth and holding it open to get more air. Rattling sounds could be heard in the lungs, and the calf was running a temperature of 107. The next day the calf refused feed and began to scour badly. Can you name the trouble?

These symptoms indicate colds, lungworms, bronchitis, drenching with medicines which have entered the lungs, pneumonia, diphtheria, or some types of poisoning.

In this case, it was pneumonia caused by a draft from a broken window. The same trouble often can be traced back to unclosed hay chutes, open doors, damp quarters, lack of bedding on concrete floors, poor ventilation, and overcrowding. A combination of penicillin and various sulfas is usually an effective treatment. However, medicines cost money and the setback to the animal represents extra expense.

Photograph: Bailey



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Snow terraces aid crops

There are many different types of terraces, but some North Dakota farmers have come up with a new one. Harold and Otto Bergman get out into their fields after a heavy snowfall and push the snow into long ridges with a bulldozer.

This snow-terracing isn't as time- or money-wasting as it sounds. The Bergmans increased their flax yield by 4 bushels to the acre on the fields which had been snow-terraced. At the price of flax last year, they increased their income per acre by more than $13.

The Bergmans say snow-terracing makes their fields easier to plow in the spring. Also, their flax came up two days sooner on the snow-terraced fields. Each snow ridge acts as a terrace to hold the moisture on the land. It cost the Bergmans $1 per acre to throw up the snow ridges.

Electric fence for poultry range

The problem of providing range for pullets was solved easily by Roy Neff, Shelbina, Missouri. He pastures the pullets right along with his livestock.

Neff's range shelters and equipment are enclosed by an electric fence which keeps the livestock at a safe distance. The electric fence unit is located in one of the range shelters as pictured below. This keeps it within handy reach and protected from the weather.

The continual grazing of the livestock outside the fence keeps the grass in a succulent condition. This way, the pullets are provided a better-quality range, reducing the amount of grain and mash needed for maximum growth.

Raising pullets on clean range is paying off for the Neffs. One year their flock averaged 387 hens, with an average production of 210 eggs. The feed cost per hen was $4.82, and income over feed cost was $3.54. This record helped the Neffs become one of the five Star Poultry Raisers of Missouri for the record-keeping year.—*N. R. Clizer.*

Photograph: Author

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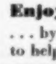

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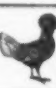

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DEPT. 187 CENTRALIA, ILLINOIS

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Sensational prices on Hayes Grade AA chicks! World-famous for their excellent quality—both for meat and eggs. Winners of many egg laying contests. Bred for high livability. Will grow faster, live better, produce more eggs. 95% sexing accuracy guaranteed. You pay postage and C.O.D. fees. ORDER TODAY... avoid disappointment. Prices subject to change without notice. Orders for less than 100, add 1¢ per chick. AAA Grade chicks—from our best laying flocks are only 3¢ per chick more. Any you might lose the first two weeks, replaced free.

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New Hampshires, Barred, White, Buff Rocks, White Wyandottes, S. C. Reds	11.90	11.90	15.90
Mixed Heavies	9.90	9.90	13.90

Mixed: May be all pullets, males or Str. Hatch—½ heavy breeds, per 100 ... $8.90
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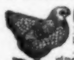

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This hen house was built to grow

At a cost of $450, the Loy Allees of Tipton, Missouri, replaced their old hen house with a modern 20'x24' building. They used the multi-unit plan which will allow them to build on to one end of the present house if they need more room.

The 20'x24' hen house not only made it possible for the Allees to increase their flock from 50 to 150 hens, but it actually reduced their house-cleaning labor from 6 days per year to less than 1 day.

By doing the construction work himself, Mr. Allee kept the cost of the building down. The new house has a 4½'x8' feed room, with an outside entrance. This helps keep the hen house quiet, and egg production at a high level.

A droppings pit and deep litter are used, and the house has been cleaned only once since last fall. This was done on May 1 and required 2½ hours. The droppings boards in the old house required cleaning once a week. A 3-deck community nest has reduced crowding and egg breakage. An automatic waterer inside the house further reduces labor in caring for the flock.

Photograph: Author

Equipment in the new laying house includes three 4' feeders, one 8-gallon waterer, and four 4½'x5' droppings-pit sections. A straw loft helps keep the house warm in winter. A concrete floor, approximately 2" thick, makes cleaning easy. The picture at left shows the "outdated" laying house behind the Allees' new hen house.—*N. R. Clizer.*

All around the farm

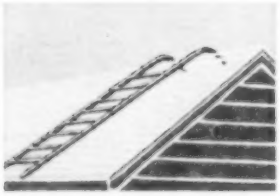
A page written by our readers

I have found that very good use can be made of the hydraulic system on a tractor when dragging logs or wood out of the timber. I hook one end of a log onto the hydraulic lift on the back of the tractor and pick it up. This makes the log pull easier and it also gives the tractor much greater traction and stability. It is surprising how big a log can be handled in this manner.—*R. M., Illinois.*

An ax guard or scabbard may prevent injury to the person carrying an ax, and certainly will protect a blade from being damaged accidentally. I made the one shown out of heavy sole leather, cut as illustrated, with ends and sides drawn together with heavy copper staples. The belt and strap to hold the ax in place are then attached.—*S. M., Wisconsin.*

To protect an electric-light switch or plug-in outlet in a corncrib or granary, use boxes recessed into the wall. This prevents a truck body or wagon box from hooking the protruding fixtures. As added protection, I cover the open side of the recessed box with a canvas curtain weighted on the bottom if the installation is exposed to dust and weather.—*W. P., Iowa.*

I save damaged plastic freezer bags and cut them open, making a flat sheet to put over small quantities of paint. By lightly pressing a sheet of this plastic material over the paint before replacing the lid on the can, I prevent scum from forming on the paint.—*Mrs. W. S., Minnesota.*



I built the ladder shown of 1" water pipe and set it permanently on the roof. The ladder will never rot with weather. When painted with aluminum paint, it does not rust. Any ladder can be set up against the eaves to reach this permanent one.—*S. L., Michigan.*

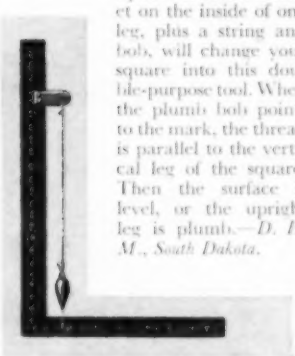
I find several uses for half of an old gear. When squared so that it will sit on an anvil or bench, it's handy for straightening bolts, nails, cotter keys, and many small parts. In using, the article to be straightened is laid between two teeth, after which an old cold chisel, rounded or flattened on the cutting end to fit between the gear teeth, is placed on the article and struck a sharp blow with a hammer.—*D. C., Iowa.*

For marking iron to be cut, we keep a piece of soapstone by our hack saws and drills. A pencil mark will not show up, but a soapstone mark will give a uniform white line on the metal.—*F. M., Pennsylvania.*

I slip my tire-changing tools and jack inside an old inner tube, fold the ends over, and slide a rubber band over the end folds. Tools are easy to get at and won't dirty the car trunk.—*H. E. C., Nebraska.*

To keep hogs from rooting gates off the hinges, I drill a hole slightly less than $\frac{1}{4}$" in diameter in the bolt which goes into the post. I thread the hole with a $\frac{1}{4}$" tap. Use a brass saw bolt and washer to hold the gate on, as illustrated. This will not rust and will be easy to remove any time you want to remove the gate.—*W. H. E., Illinois.*

I converted my steel square into a very sensitive level by suspending a plumb bob, as shown, from one leg of the square. A small bracket on the inside of one leg, plus a string and bob, will change your square into this double-purpose tool. When the plumb bob points to the mark, the thread is parallel to the vertical leg of the square. Then the surface is level, or the upright leg is plumb.—*D. H. M., South Dakota.*



I keep a piece of ordinary steel wool in the center of my spool of acid-core solder so I will have it handy when I solder. It does a good job of cleaning metal so the solder will stick. You seldom need any other cleaner.—*J. M., North Dakota.*

If the spring is gone in an oilcan, I put the can over the end of a piece of pipe. Then I put a round-headed bolt in the oilcan and tap the end of the bolt lightly. This drives the bottom of the oilcan downward so there is ample spring in the bottom of the oiler.—*D. J., Minnesota.*

For winter lambs that arrive during cold, stormy days, I have rigged up my electric chick brooder in the barn by tying it to the ceiling with wire. The brooder hangs about 15" to 18" above the floor within reach of a light socket or plug. While our ewes run in and out, the lambs will lie under the brooder. I have used this system successfully for several years.—*B. R., Minnesota.*

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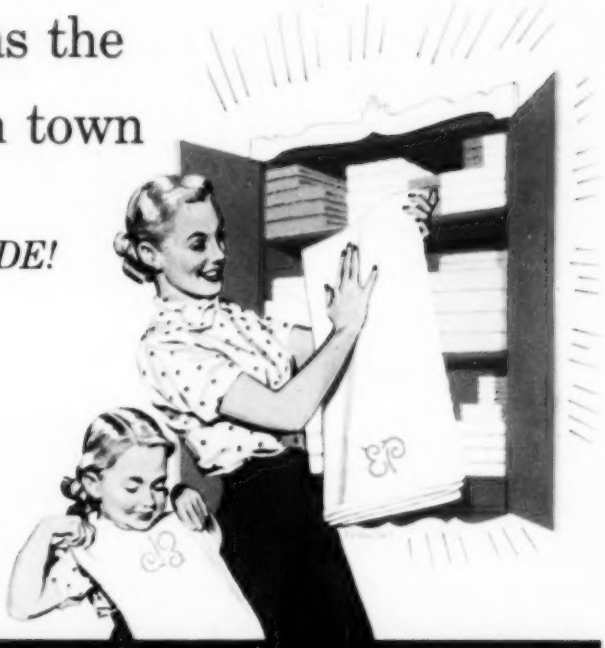

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